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FILE COVERS 1907 - 1 Aug 2002  VOL 137 ISS 5
FILE LAST UPDATED: 30 Jul 2002  (20020730/ED)

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=> d stat que
L2            96 SEA FILE=HCAPLUS ((BALLANTYNE D?) OR (BALLANTYNE,D?) OR
                 (BALLANTYNE, D?))/AU,IN
L3            23 SEA FILE=HCAPLUS ((WARMINGTON J?) OR (WARMINGTON,J?) OR
                 (WARMINGTON, J?))/AU,IN
L4             5 SEA FILE=HCAPLUS (L2 OR L3) AND CANDIDA(5W)ANTIGEN?


=> d ibib abs hitrn l4 1-5

L4   ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1995:995521  HCAPLUS
DOCUMENT NUMBER:          124:140395
TITLE:                    Candida albicans enolase peptides for diagnostics and
                          therapeutics
INVENTOR(S):              Warmington, John Rodney; Franklyn, Kathleen
                          Mary
PATENT ASSIGNEE(S):       Curtin University of Technology, Australia
SOURCE:                   PCT Int. Appl., 36 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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WO 9526362	A1	19951005	WO 1995-AU176	19950327
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9521063	A1	19951017	AU 1995-21063	19950327
AU 684009	B2	19971127		
EP 759034	A1	19970226	EP 1995-913823	19950327
R: DE, FR, GB, IT				
PRIORITY APPLN. INFO.:			AU 1994-4732	19940325
			WO 1995-AU176	19950327

AB The invention relates to peptides, polypeptides, or proteins or portions thereof, the amino acid sequences of which correspond to antigenic segments of an immunol. important protein of Candida albicans, in particular enolase. These peptides, polypeptides or proteins are useful as diagnostic reagents for detecting the presence of antibodies reactive with Candida Albicans and may also be useful as therapeutic agents as well as immunogens in compns. and methods to elicit antibodies against Candida albicans.

L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1995:544578 HCAPLUS
DOCUMENT NUMBER:	122:312588
TITLE:	Humoral immune responses to systemic Candida albicans infection in inbred mouse strains
AUTHOR(S):	Costantino, Paul J.; Gare, Norman F.; **Warmington, John R.**
CORPORATE SOURCE:	School of Biomedical Sciences, Curtin University of Technology, Perth, Australia
SOURCE:	Immunol. Cell Biol. (1995), 73(2), 125-33 CODEN: ICBIEZ; ISSN: 0818-9641
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB The protective role of humoral antibodies in the resoln. of systemic candidiasis remains controversial. Investigation of the humoral immune responses in mouse strains of varying susceptibility to infection may demonstrate a link between mouse strain susceptibility, antibody prodn. and specificity, and the ability to resolve an infection. The antibody response in five different strains of mice during a primary immune response to systemic infection with Candida albicans was investigated. Immune sera were fractionated by protein A affinity chromatog. to yield fractions contg. IgG1, IgG2a and IgG2b Igs. BALB/c mice of low susceptibility to the infection and DBA/2J mice of high susceptibility produced increased levels of the IgG1 isotype and decreased levels of the IgG2a isotype. AKR, CBA/H and C57B1/6J mice of moderate susceptibility produced antibodies predominantly of the IgG2a isotype. The patterns of antigen recognition by antibodies in immune sera and in fractions obtained after protein A chromatog. of immune sera were investigated by western blotting and immunostaining. Antibodies from AKR(H-2K) and CBA/H (H-2k) mice reacted strongly after immunoblotting with antigens of 87 and 96 kDa.

In contrast, immune sera from both the highly susceptible DBA/2J (H-2d) mice and the resistant BALB/c (H-2d) mice reacted strongly with an antigen of 48 kDa. C57B1/6J (H-2b) mice produced variable antibody reactivity to antigens of 48, 65, 66 and 79 kDa depending on the IgG subclass tested. The IgG subclass responses and the patterns of antigen recognition in these mice suggest that humoral responses to C. albicans may be restricted by H-2 haplotype. There was no clear correlation between humoral immunity and resistance or susceptibility to infection with C. albicans.

L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:242078 HCAPLUS
DOCUMENT NUMBER: 120:242078
TITLE: Production of antibodies to antigens of Candida albicans in CBA/H mice
AUTHOR(S): Costantino, Paul J.; Franklyn, Kathleen M.; Gare, Norman F.; **Warmington, John R.**
CORPORATE SOURCE: Sch. Biomed. Sci., Curtin Univ. Technol., Perth, 6102, Australia
SOURCE: Infect. Immun. (1994), 62(4), 1400-5
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reported targets of the specific immune responses to C. albicans in human candidiasis include a 47-kDa breakdown product of a 90-kDa heat shock protein (HSP 90) and the 48-kDa enolase. These proteins are immunodominant antigens of C. albicans. Western blotting (immunoblotting) and immunopptn. were used to investigate the humoral response in a mouse model of systemic candidiasis. Resoln. of systemic candidiasis in CBA/H mice is assocd. with a high level of antibody reactivity to C. albicans antigens. A significant antibody response against a non-HSP antigen of 96 kDa which was distinct from the C. albicans HSP 90 antigen was detected. Significant antibody reactivity against an HSP of 75 kDa was also detected. Thus, the resoln. of C. albicans infections in CBA/H mice was assocd. with antibodies to an HSP and a non-HSP of 75 and 96 kDa, resp.

L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:181764 HCAPLUS
DOCUMENT NUMBER: 114:181764
TITLE: An immunodominant antigen of Candida albicans shows homology to the enzyme enolase
AUTHOR(S): Franklyn, K. M.; **Warmington, J. R.**; Ott, A. K.; Ashman, R. B.
CORPORATE SOURCE: Dep. Med. Technol., Curtin Univ. Technol., Bentley, 6102, Australia
SOURCE: Immunol. Cell Biol. (1990), 68(3), 173-8
CODEN: ICBIEZ; ISSN: 0818-9641
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antibody to an immunodominant antigen of .apprxeq.48 kDa is found in a high proportion of patients with mucocutaneous or systemic infections of the yeast C. albicans. A cDNA encoding part of the 48 kDa antigen has been isolated. From the deduced amino acid sequence of the cDNA clone, the 48 kDa antigen shows homol. to the enzyme enolase.

L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:569817 HCAPLUS
DOCUMENT NUMBER: 113:169817
TITLE: Antigens and immune responses in Candida albicans infection
AUTHOR(S): Ashman, R. B.; Papadimitriou, J. M.; Ott, A. K.; **Warmington, J. R.**
CORPORATE SOURCE: Dep. Pathol., Univ. West. Australia, Nedlands, 6009, Australia
SOURCE: Immunol. Cell Biol. (1990), 68(1), 1-13
CODEN: ICBIEZ; ISSN: 0818-9641
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 130 refs. of C. albicans antigens, antibody and cellular immune responses to these antigens, and mechanisms of host susceptibility and resistance.

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FILE COVERS 1907 - 1 Aug 2002  VOL 137 ISS 5
FILE LAST UPDATED: 30 Jul 2002  (20020730/ED)

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information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> d stat que
L1         92298 SEA FILE=REGISTRY ANTIGEN/BI OR ANTIGENIC/BI
L2        579604 SEA FILE=HCAPLUS L1 OR ANTIGEN? OR AG
L3          1163 SEA FILE=HCAPLUS (CANDIDA OR ALBICANS?)(L)(L2 OR ENOLASE?)
L4            20 SEA FILE=HCAPLUS L3 (L)(DIAGNOS? OR ?ASSAY? OR TEST?) AND
                   (COLOR? OR COLOUR? OR FLUORES? OR RADIOACTIVE?)
L5            35 SEA FILE=HCAPLUS L3 (L)IMMUNODOMIN?
L7            26 SEA FILE=HCAPLUS L5 AND (DIAGNOS? OR ?ASSAY? OR IDENT? OR
                   DETECT?)
L8            46 SEA FILE=HCAPLUS L4 OR L7
L9             3 SEA FILE=HCAPLUS L8 AND (IMMOBIL? OR EMBED? OR CONJUGATE?)


=> d ibib abs hitrn l9 1-3

L9   ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1992:39230  HCAPLUS
DOCUMENT NUMBER:          116:39230
TITLE:                    The application of epitope mapping in the development
                          of a new serological test for systemic candidosis
AUTHOR(S):                Matthews, Ruth; Burnie, James P.; Lee, Woei
CORPORATE SOURCE:         Med. Sch., Manchester Univ., Manchester, M13 9PT, UK
SOURCE:                   J. Immunol. Methods (1991), 143(1), 73-9
                          CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
```

AB A new serol. test for systemic candidosis was developed by raising a rabbit antiserum probe against a specific epitope on **Candida albicans**, hsp 90. A major fragment at the C-terminal end of this **immunodominant** candidal **antigen** was epitope mapped by Geysen's method. An epitope, recognized by all infected patients with antibody to the 47 kDa **antigen**, was synthesized and **conjugated** to keyhole limpet hemocyanin. A rabbit was successfully immunized against this synthesized peptide epitope and this antiserum was compared, in a dot-immunobinding **assay**, with unfractionated hyperimmune rabbit antiserum to C. **albicans** and an affinity-purified rabbit antiserum to the 47 kDa **antigen**. The epitope-specific antibody probe was more sensitive than the hyperimmune candidal antiserum but less sensitive than the affinity-purified antibody against the 47 kDa **antigen**, which recognized multiple epitopes. This probe is tech. easy to prep. in large amts. and gives no false positives.

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:495945 HCAPLUS
DOCUMENT NUMBER: 105:95945
TITLE: Monoclonal antibodies and their use
INVENTOR(S): Wright, Bruce William; Cox, Peter John; Noyes, Alice Margaret; Widdows, Danny; Mason, Robert James
PATENT ASSIGNEE(S): Technology Licence Co. Ltd., UK
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8602365	A1	19860424	WO 1985-GB476	19851016
W: JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
EP 200745	A1	19861112	EP 1985-905090	19851016
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				

PRIORITY APPLN. INFO.: GB 1984-26459 19841019
AB Monoclonal antibodies, useful in the **diagnosis** of venereal disease, in immuno-compromised patients, in infants, and in infections of the upper airway panel, are prepd. by using conventional hybridoma technol. The monoclonal antibodies are labeled and used in **immunoassays** for rapidly **diagnosing** for the presence of **Candida** (in particular, C. **albicans**) **antigens** and(or) species.

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1967:84074 HCAPLUS
DOCUMENT NUMBER: 66:84074
TITLE: Immunofluorescent and immunophoretic data on antigenic properties of Candida albicans
AUTHOR(S): Berchev, Kr.; Izmirov, I.
CORPORATE SOURCE: Higher Inst. Med., Sofia, Bulg.

SOURCE: Experientia (1967), 23(2), 103-4
CODEN: EXPEAM
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rabbits were injected i.m. in the hind legs twice at 5-day intervals with 5 ml. of a culture of **Candida albicans** (107 cells/ml.) heated to 80.degree. for 60 min., 2 ml. of a culture of 106 living cells/ml., or 5 ml. of a culture of 12 million living cells/ml. The antisera produced were **conjugated** with **fluorescein** isothiocyanate. Immunoelectrophoresis with the antisera and a C. **albicans antigen** prepd. from 0.025 g. of a 48-hr. culture in blood agar showed 4 zones of pptn.: albumins, .alpha.1-.alpha.2-globulins, .alpha.2-.beta.1-globulins, and a broad zone between albumins and .gamma.1-macroglobulins. The latter component stained with Schiff's reagent and Amido Black. The .alpha.1-.alpha.2-component also stained intensely with Amido Black. Tissues from rabbits inoculated with 0.5 ml./kg. of a culture contg. 109 cells/ml. died in 15-24 hrs. Immunofluorescent **assay** of tissues showed C. **albicans** cells, chlamydospores, mycelia, and pseudomycelia in kidneys, liver, spleen, lungs, lumen of the blood vessels and renal tubules, glomerules, and the interstitial tissue. All parts of the C. **albicans** cells **fluoresced**. Occasionally the cellular membrane showed a more intense **fluorescence** than the central cytoplasmic and nuclear portions. Pseudomycelia and mycelia **fluoresced** less intensely than C. **albicans** cells.

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=> d stat que
L1        92298 SEA FILE=REGISTRY ANTIGEN/BI OR ANTIGENIC/BI
L2       579604 SEA FILE=HCAPLUS L1 OR ANTIGEN? OR AG
L3         1163 SEA FILE=HCAPLUS (CANDIDA OR ALBICANS?)(L)(L2 OR ENOLASE?)
L4           20 SEA FILE=HCAPLUS L3 (L)(DIAGNOS? OR ?ASSAY? OR TEST?) AND
                (COLOR? OR COLOUR? OR FLUORES? OR RADIOACTIVE?)
L5           35 SEA FILE=HCAPLUS L3 (L)IMMUNODOMIN?
L7           26 SEA FILE=HCAPLUS L5 AND (DIAGNOS? OR ?ASSAY? OR IDENT? OR
                DETECT?)
L8           46 SEA FILE=HCAPLUS L4 OR L7
L9            3 SEA FILE=HCAPLUS L8 AND (IMMOBIL? OR EMBED? OR CONJUGATE?)
L10          43 SEA FILE=HCAPLUS L8 NOT L9
L11           4 SEA FILE=HCAPLUS L10(L)CYTOPLASM?


=> d ibib abs hitrn l11 1-4

L11  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:        1994:404614  HCAPLUS
DOCUMENT NUMBER:         121:4614
TITLE:                   a subset of proteins found in culture supernatants of
                         Candida albicans includes the
                         abundant, immunodominant, glycolytic enzyme
                         enolase
AUTHOR(S):               Sundstrom, Paula; Aliaga, George R.
CORPORATE SOURCE:        Health Sci. Cent., Univ. North Texas, Fort Worth, TX,
                         USA
```

SOURCE: J. Infect. Dis. (1994), 169(2), 452-6
CODEN: JIDIAQ; ISSN: 0022-1899
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Immunoblot anal. showed that enolase is one of a subset of proteins found in cell supernatants of Candida albicans. Enzyme **assays** on whole cell exts. indicated that enolase is an abundant protein, comprising 0.7% and 2.0% of the total protein from yeast and hyphal forms of C. albicans, resp. Comparison of enolase enzyme activities in whole cell exts. and cell culture supernatants showed the enzyme to be located primarily within cells. Extracellular glyceraldehyde-3-phosphate dehydrogenase activity was absent or lower than that of enolase, despite equiv. intracellular levels. The results suggest that enolase, released from fungi in the absence of host factors, may contribute to enolase found circulating in the blood of patients with hematogenously disseminated candidiasis. In addn., the release from cells of highly immunogenic fungal proteins, such as enolase, may be important in defining the selective stimulation of host antifungal responses during infection.

L11 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:233689 HCAPLUS
DOCUMENT NUMBER: 116:233689
TITLE: **Identification** of Candida albicans antigens reactive with immunoglobulin E antibody of human sera
AUTHOR(S): Ishiguro, Ayako; Homma, Michio; Torii, Shimpei; Tanaka, Kenji
CORPORATE SOURCE: Sch. Med., Nagoya Univ., Nagoya, 466, Japan
SOURCE: Infect. Immun. (1992), 60(4), 1550-7
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB C. **albicans antigens** which reacted with IgE antibodies of allergic patients were **detected** by immunoblotting. Of the various **antigens**, the 175-, 125-, 46-, 43-, and 37-kDa **antigenic** components reacted most frequently with the patient sera. To purify the major **antigens**, C. **albicans** cells were fractionated. The 46-, 43-, and 37-kDa **antigens** were recovered in **cytoplasmic** fractions, but the 175- and 125-kDa **antigens** were not recovered in any fraction. The 46-, 43-, and 37-kDa **antigens** were purified from **cytoplasmic** fractions by DEAE and P11 ion-exchange chromatog. **Antigens** were isolated by cutting bands out of SDS-polyacrylamide gels. The purified components confirmed by immunoblotting were next processed for amino acid sequencing. Parts of the sequences of the 46-, 43-, and 37-kDa **antigens** had significant levels of homol. with Saccharomyces cerevisiae glycolytic enzyme **enolase**, phosphoglycerate kinase, and aldolase, resp. Rabbit IgG antibodies prepd. against the 46- and 43-kDa **antigens** strongly cross-reacted with the homologous proteins of S. cerevisiae. However, S. cerevisiae **enolase** and phosphoglycerate kinase did not cross-react with IgE of patient sera. Thus, IgE antibodies against only small parts of their epitopes are elevated in the allergic patients. Since **enolase** is reported to be a major **antigen** for systemic candidiasis, this enzyme may be the **immunodominant** protein in both allergies and fungal

infections.

L11 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:56962 HCAPLUS
DOCUMENT NUMBER: 116:56962
TITLE: Characterization of a monoclonal antibody (RJ5) against the **immunodominant** 41-kD **antigen** of **Candida albicans**
AUTHOR(S): Shen, Horng Der; Choo, Kung Bung; Yu, Kwok Woon; Ling, Win Lin; Chang, Fu Chung; Han, Shou Hwa
CORPORATE SOURCE: Dep. Med. Res., Veterans Gen. Hosp., Taipei, 11217, Taiwan
SOURCE: Int. Arch. Allergy Appl. Immunol. (1991), 96(2), 142-8
CODEN: IAAAAM; ISSN: 0020-5915
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A 41-kD component of C. **albicans** was **identified** to be the major **antigen** radioimmunopptd. by antibodies with increased titers in the sera of patients with invasive candidiasis. A mouse monoclonal antibody (RJ5) was generated which, by immunoblotting, showed pos. reactivity to the immunopptd. 41-kD component. By two-dimensional gel electrophoresis and immunoblotting, MoAb RJ5 was shown to react with different isoforms of the 41-kD component with pI values from 6.1 to 6.9. Furthermore, MoAb RJ5 showed pos. reactivity to **cytoplasmic antigens** of C. **albicans** by frozen section and immunoperoxidase staining. By SDS-polyacrylamide gel electrophoresis and immunoblotting, MoAb RJ5 showed no cross-reactivity to **antigens** of C. tropicalis and C. parapsilosis. The epitope of the 41-kD mol. recognized by MoAb RJ5 was susceptible to treatment of proteinase K at concns. of .gtoreq.5 .mu.g/mL, and was relatively resistant to periodate oxidn. with concn. of NaIO4 up to 20 mM. This MoAb may be useful in the purifn. and characterization of the **immunodominant** 41-kD **antigen** of C. **albicans**, and as a probe in the **detection** of **Candida antigens** in the sera of patients with invasive candidiasis.

L11 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:150991 HCAPLUS
DOCUMENT NUMBER: 110:150991
TITLE: Characterization and cellular localization of the **immunodominant** 47-Kda **antigen** of **Candida albicans**
AUTHOR(S): Matthews, Ruth; Wells, C.; Burnie, J. P.
CORPORATE SOURCE: Dep. Med. Microbiol., St. Bartholomew's Hosp., London, EC1A 7BE, UK
SOURCE: J. Med. Microbiol. (1988), 27(4), 227-32
CODEN: JMMIAV; ISSN: 0022-2615
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 47-Kda component of C. **albicans** is an **immunodominant antigen** in the serol. of systemic candidosis. Immuno-electronmicroscopy with an affinity-purified **antigen** of the 47-Kda **antigen** showed that it was present in the **cytoplasm** and cell wall of both yeast and mycelial cells. It was

found in discrete areas on the inner and outer borders of the cell wall and was mainly located within the wall rather than exposed on the outer surface. Sometimes it appeared to be in channels across the cell wall. In the **cytoplasm**, it was usually near the **cytoplasmic** membrane and occasionally appeared in vesicular areas. It was not **detected** in the nucleus or mitochondria. The 47-Kda **antigen** did not bind to Con A, and its **antigenicity** was lost after protease digestion. Peptide mapping suggested that the **antigen** was highly conserved between different strains of C. **albicans**.

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=> d stat que
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L2       579604 SEA FILE=HCAPLUS L1 OR ANTIGEN? OR AG
L3         1163 SEA FILE=HCAPLUS (CANDIDA OR ALBICANS?)(L)(L2 OR ENOLASE?)
L4           20 SEA FILE=HCAPLUS L3 (L)(DIAGNOS? OR ?ASSAY? OR TEST?) AND
                (COLOR? OR COLOUR? OR FLUORES? OR RADIOACTIVE?)
L5           35 SEA FILE=HCAPLUS L3 (L)IMMUNODOMIN?
L7           26 SEA FILE=HCAPLUS L5 AND (DIAGNOS? OR ?ASSAY? OR IDENT? OR
                DETECT?)
L8           46 SEA FILE=HCAPLUS L4 OR L7
L9            3 SEA FILE=HCAPLUS L8 AND (IMMOBIL? OR EMBED? OR CONJUGATE?)
L10          43 SEA FILE=HCAPLUS L8 NOT L9
L12          17 SEA FILE=HCAPLUS L10 AND (INFECT? OR DISEASE?)

=> d ibib abs hitrn l12 1-17

L12  ANSWER 1 OF 17  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:53542  HCAPLUS
TITLE:                    Immunoreactivity of the fungal cell wall
AUTHOR(S):                Ponton, J.; Omaetxebarria, M. J.; Elguezabal, N.;
                          Alvarez, M.; Moragues, M. D.
CORPORATE SOURCE:         Departamento de Immunologia, Microbiologia y
                          Parasitologia, Facultad de Medicina y Odontologia,
                          Universidad del Pais Vasco, Vizcaya, E-48080, Spain
SOURCE:                   Medical Mycology (2001), 39(Suppl. 1), 101-110
                          CODEN: MEMYFR; ISSN: 1369-3786
PUBLISHER:                BIOS Scientific Publishers Ltd.
DOCUMENT TYPE:            Journal; General Review
LANGUAGE:                 English
AB   The cell wall is the major fungal structure involved in the interaction
     with the host and most of the immunol. effects obsd. with intact fungal
     cells have been reproduced with cell-wall components. As a result of the
     exposure to fungal antigens, most individuals develop both
     cellular and antibody responses intended to limit the invasiveness or to
     eradicate the fungus from the infected tissues. However, a no.
     of fungi including Candida albicans, Cryptococcus
     neoformans, Blastomyces dermatitidis, Coccidioides immitis, Trichophyton
     spp. and Histoplasma capsulatum can also induce T- and B-suppressive
     activities. A wide diversity of immunodominant cell-wall
     antigens for both cell-mediated and humoral responses have been
     identified in the most important fungal pathogens, although
```

considerable differences exist in the information available at the mol. level among the different mycoses. Cellular responses require macrophage and Th1 activation, whereas humoral responses comprise the activation of the complement system and the induction of antibodies. The ability of fungal cell-wall components to elicit cellular or humoral immune responses has been traditionally used in the serodiagnosis of mycoses, the **identification** of fungal organisms and the development of vaccines for the prevention of mycoses. In the future, the anal. of such mols. will provide crit. information in understanding the nature of host-fungus interactions.

REFERENCE COUNT: 141 THERE ARE 141 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:149192 HCAPLUS
DOCUMENT NUMBER: 134:232406
TITLE: New quantitative determination of Candida albicans by PCR and identification of Candida species by nested PCR in fungemia
AUTHOR(S): Inada, Yoshinori; Tsunoda, Takuya; Tanimura, Hiroshi
CORPORATE SOURCE: Second. Dep. Surg., Wakayama Med. Sch., 811-1 Kimiidera, Wakayama, 641-8510, Japan
SOURCE: Nippon Kagaku Ryoho Gakkai Zasshi (2001), 49(1), 18-29
CODEN: NKRZE5; ISSN: 1340-7007
PUBLISHER: Nippon Kagaku Ryoho Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB **Candida** species are reported to be one of the major pathogens in serious **infectious** problems in the surgical treatment of cancer patients. Candidemia is **diagnosed** by blood culture, .beta.-D-glucan, and **Candida antigen assay** in Japan. However, these methods are not satisfied in the view points of confidence and quickness. The polymerase chain reaction (PCR) has been applied to **diagnose** fungal **infections**. **Candida**-specific PCR was developed to detect fungi, esp. medically important **Candida** sp., and proved to be clin. more reliable than conventional methods. However **Candida**-specific PCR provided only nonquant. results and it was difficult to **diagnose** fungemia more precisely. Therefore, the present study was designed to investigate the real-time quant. PCR for **diagnosis** and quant. anal. of candidiasis. The **Candida albicans**-secreted aspartic proteinase (SAP) gene was used as the specific primer pair of in quant. PCR. A specific fluorogenic probe was designed between the sequence of the specific primer pair of SAP genes. Real-time detection of the specific **fluorescent** signal in each PCR cycle indicated an essential information to quantify the no. of C. **albicans**. This method was evaluated using human whole blood mixed with different nos. of C. **albicans** isolates. Almost no difference was seen between measured nos. analyzed within 4.5 h and actual nos. Furthermore, the present study was designed to investigate the nested PCR for identification of clin. important C. **albicans**, **Candida** tropicalis, **Candida** parapsilosis, **Candida** glabrata and **Candida** krusei, and it was successfully established in candidemia.

Each specific nested primer pair was designed to identify individual fungi, between the sequence of the specific primer pair of the first PCR for the V 4 region of the 18 S rRNA gene of **Candida** sp.. Our quant. detn. of C. **albicans** using real-time PCR and identification of **Candida** sp. by nested PCR were confirmed to be applicable to fungemia and able to **diagnose** easily and sensitively quantify C. **albicans** or identify **Candida** sp. from blood in a short time.

L12 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:698844 HCAPLUS
DOCUMENT NUMBER: 134:16373
TITLE: The study of cell-mediated immune response in recurrent vulvovaginal candidiasis
AUTHOR(S): Nawrot, U.; Grzybek-Hryncewicz, K.; Zielska, U.; Czarny, A.; Podwinska, J.
CORPORATE SOURCE: Department of Microbiology, Medical University of Wroclaw, Wroclaw, Pol.
SOURCE: FEMS Immunology and Medical Microbiology (2000), 29(2), 89-94
CODEN: FIMIEV; ISSN: 0928-8244
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this work was to examine in vitro the ability of cells from patients with recurrent vulvovaginal candidiasis (RVVC) to cell-mediated immune response. Peripheral blood mononuclear cells (PBMC) and whole blood cells (WBC) of 37 RVVC patients in acute **infection** and 14 in remission were examd. for the ability to proliferation and cytokines prodn. (IFN, TNF, IL-6). As a control, a group of 25 healthy women were examd. The cells were stimulated with **Candida antigen** (HKCA), LPS and PHA. To indicate the level of cytokines, the following cell-lines were used: A549 for IFN, WEHI 164 for TNF and 7TD1 for IL-6. The proliferation/death of cells was detd. by **colorimetric test** using MTT. Distinct suppression of cell-mediated immune response (CMI) was shown in all patients comparing to the control. Greatest suppression was found in the acute phase of the **disease**. The ability of cells to proliferate and produce IFN increases only in remission. The data seem to suggest that in this phase of **disease**, the ability of cell-mediated immune response is restored. It was also indicated that IFN may take part in protection against **Candida infection**.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:439923 HCAPLUS
DOCUMENT NUMBER: 133:55182
TITLE: Purification of native enolase from medically important Candida species
AUTHOR(S): Ballantyne, Denis S.; Warmington, John R.
CORPORATE SOURCE: School of Biomedical Sciences, Curtin University of Technology, Perth, 6845, Australia
SOURCE: Biotechnology and Applied Biochemistry (2000), 31(3),

213-218
CODEN: BABIEC; ISSN: 0885-4513
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 48-kDa glycolytic enzyme, **enolase**, has been **identified** as an **immunodominant antigen** in **Candida albicans infections**. It has also been **identified** as an important fungal allergen. Here, **enolase** from a no. of medically important **Candida** species was purified using a 2-step anion- and cation-exchange chromatog. method that was preceded by an org. extn. The **enolases** purified by this method had a high specific activity and the procedure was 40% efficient, with an av. of 5 mg **enolase**/g **Candida** cells. The purifn. of native **enolase** from medically important **Candida** species will enable the immunol. significance and interspecies relations of this major fungal **antigen** to be investigated.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:358996 HCAPLUS
DOCUMENT NUMBER: 133:103575
TITLE: Local anticandidal immune responses in a rat model of vaginal **infection** by and protection against Candida albicans
AUTHOR(S): De Bernardis, Flavia; Santoni, Giorgio; Boccanera, Maria; Spreghini, Elisabetta; Adriani, Daniela; Morelli, Luisella; Cassone, Antonio
CORPORATE SOURCE: Department of Bacteriology and Medical Mycology, Istituto Superiore di Sanita, 00161, Italy
SOURCE: Infection and Immunity (2000), 68(6), 3297-3304
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Humoral (antibody [Ab]) and cellular **Candida**-specific immune responses in the vaginas of pseudoestrus rats were investigated during three successive **infections** by **Candida albicans**. After the first, protective **infection**, Abs against mannan and aspartyl proteinase **antigens** were present in the vaginal fluid, and their titers clearly increased during the two subsequent, rapidly healing **infections**. In all animals, about 65 and 10% of vaginal lymphocytes (VL) were CD3+ (T cells) and CD3- CD5+ (B cells), resp. Two-thirds of the CD3+ T cells expressed the .alpha./.beta. and one-third expressed the .gamma./.delta. T-cell receptor (TCR). This proportion slightly fluctuated during the three rounds of C. **albicans infection**, but no significant differences between **infected** and noninfected rats were found. More relevant were the changes in the CD4+/CD8+ T-cell ratio, particularly for cells bearing the CD25 (interleukin-2 receptor .alpha.) marker. In fact, a progressively increased no. of both CD4+ .alpha./.beta. TCR and CD4+ CD25+ VL was obsd. after the second and third **Candida** challenges, reversing the high initial CD8+ cell no. of controls (estrogenized but

uninfected rats). The CD3- CD5+ cells also almost doubled from the first to the third **infection**. Anal. of the cytokines secreted in the vaginal fluid of **Candida-infected** rats showed high levels of interleukin 12 (IL-12) during the first **infection**, followed by progressively increasing amts. of IL-2 and gamma interferon during the subsequent **infections**. No IL-4 or IL-5 was ever **detected**. During the third **infection**, VL with in vitro proliferative activity in response to an **immunodominant** mannoprotein **antigen** of C. **albicans** were present in the vaginal tissue. No response to this **antigen** by mitogen-responsive blood, lymph node, and spleen cells was found. In summary, the presence of protective Ab and T helper type 1 cytokines in the vaginal fluids, the in vitro proliferation of vaginal lymphocytes in response to **Candida antigenic** stimulation, and the increased no. of activated CD4+ cells and some special B lymphocytes after C. **albicans** challenge constitute good evidence for induction of locally expressed **Candida**-specific Ab and cellular responses which are potentially involved in anticandidal protection at the vaginal level.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:14435 HCAPLUS
DOCUMENT NUMBER: 132:306835
TITLE: Carboxyfluorescein succinimidyl ester-based proliferative assays for assessment of T cell function in the diagnostic laboratory
AUTHOR(S): Fulcher, D. A.; Wong, S. W. J.
CORPORATE SOURCE: Department of Immunopathology, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Westmead, 2145, Australia
SOURCE: Immunology and Cell Biology (1999), 77(6), 559-564
CODEN: ICBIEZ; ISSN: 0818-9641
PUBLISHER: Blackwell Science Asia Pty Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with refs. Immune deficiency **diseases** are often accompanied by abnormalities in one or both arms of the specific immune system. Impairment can often be detected as a decrease in the no. of T or B lymphocytes or their products in the circulation, but questions are often asked as to the functional capabilities of T lymphocytes in patients with recurrent **infections**. Function of T cells has traditionally been measured by their uptake of [3H]-thymidine following stimulation with **antigen** or mitogen in vitro. However, the ability of carboxyfluorescein succinimidyl ester (CFSE) to label lymphocytes intracellularly and track their mitotic activity by progressive two-fold redn. in **fluorescence** intensity prompted an alternative methodol. based on flow cytometry, an approach which has the advantage of allowing specific gating on particular T cell subsets and simultaneous assessment of activation markers. This method was therefore evaluated for T cell responses to mitogen and **antigen**. Phytohemagglutinin-induced blast transformation of CFSE-labeled T cells was reflected by an increase in forward and orthogonal light scatter and a

progressive two-fold decrease in CFSE **fluorescence** intensity. These changes allowed the derivation of various measures of mitotic activity, which correlated well with [3H]-thymidine uptake. Patients with T cell functional deficiencies showed impairment in their responses by both **assays**, whereas the CFSE-based **assay** demonstrated that impaired blastogenesis was not simply due to depressed T cell nos. Concomitant measurement of the activation markers CD69 and CD25 showed that CD69 was rapidly expressed on non-mitotic cells and that this expression was progressively dild. with subsequent rounds of cell division. In contrast, CD25 expression was unaffected by cell cycle, but was expressed in proportion to the PHA dose. **Antigen**-specific responsiveness to **Candida** was also assessed using a CFSE-based **assay**. Initial gating on the relatively minor population of T cells that underwent blast transformation demonstrated progressive twofold dilns. of CFSE intensity in responsive cells. These normal **Candida** responses, found in patients who had recovered from **Candida infection**, contrasted with those who had not been **infected** with **Candida** or who had chronic recurrent **infection**, in whom neither blast transformation nor significant mitosis could be detected. Again, there was good correlation with [3H]-thymidine uptake. The CFSE-based **assays** are equiv. to traditional measures of mitogen- and **antigen**-specific T cell responsiveness in the **diagnostic** lab. and have significant advantages in terms of decreased labour intensiveness, avoidance of radioactivity, the ability to gate on a specific population of lymphocytes and the concomitant measurement of activation markers.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:482320 HCAPLUS
DOCUMENT NUMBER: 132:75674
TITLE: (1 .fwdarw. 3)-.beta.-D-Glucan measurement methods
AUTHOR(S): Mori, Takeshi; Matsumura, Makiko
CORPORATE SOURCE: Sch. Med., Juntendo Univ., Tokyo, 133-8421, Japan
SOURCE: Seibutsu Shiryo Bunseki (1999), 22(3), 213-220
CODEN: SSBUEL; ISSN: 0913-3763
PUBLISHER: Seibutsu Shiryo Bunseki Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Summary The use of intensive regimens for immunosuppression, more potent antibacterial agents, and the increasing incidence of AIDS have led to a higher frequency of opportunistic fungal **infections**. The prognosis of these fungal **infections** is poor unless appropriate antifungal therapy is promptly initiated. (1.fwdarw.3)-.beta.-D-Glucan is a characteristic major cell wall component of fungi including Aspergillus spp., **Candida** spp., and Pneumocystis carinii, and its presence has been recognized in Fusarium, Trichosporon, Saccharomyces and Acremonium. However, Cryptococcus neoformans and Mucor contain little of this component in their cell walls. Plasma (1.fwdarw.3)-.beta.-D-glucan measurement methods for **diagnosis** for fungal **infections** have been developed in Japan, and are two; the chromogenic method and turbidimetric method. Although the (1.fwdarw.3)-.beta.-D-glucan measurement methods could not identify the pathogenic fungi, the

(1.fwdarw.3)-.beta.-D-glucan measurement methods for the **diagnosis** of fungal **infections** were more useful than the other **antigen** detection methods (Pastorex **Candida**, Pastorex Aspergillus, and CAND-TEC), according to our experience.

L12 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:136752 HCAPLUS
DOCUMENT NUMBER: 130:208804
TITLE: In situ immunodetection of antigens
INVENTOR(S): Zeytinoglu, Fusun N.; Thiebaut, Franz B.
PATENT ASSIGNEE(S): Browne, H. Lee, USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5874226	A	19990223	US 1995-447072	19950522
CA 2221724	AA	19961121	CA 1996-2221724	19960514
WO 9636274	A1	19961121	WO 1996-US6805	19960514
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
AU 9657446	A1	19961129	AU 1996-57446	19960514
CN 1195275	A	19981007	CN 1996-195515	19960514
EP 871393	A1	19981021	EP 1996-915750	19960514
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
JP 2002504222	T2	20020205	JP 1996-534958	19960514
US 6080539	A	20000627	US 1998-168209	19981007

PRIORITY APPLN. INFO.: US 1995-447072 A 19950522
WO 1996-US6805 W 19960514

AB An antibody targeted to an antigen is brought into contact with a body component in situ by applying a retainer. The resulting antibody/antigen complex is labeled and may be amplified. The label is then detected either in situ or ex situ. The body component is skin or mucous membrane; the label comprises chromogen (e.g. 3-amino-9-Et carbazole), streptavidin, and a biotinylated oligonucleotide; and the antigen is a pathogenic antigen (e.g. tetanus toxoid, Papilloma virus E1 and E4, cell wall protein of Mycobacterium leprae, and others). The immunodetection method is useful for diagnosis of fungal **infection**, bacterial **infection**, viral **infection**, and neoplasm. The method is esp. useful for differential diagnosis between melanoma and fungal skin **infection**.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:546675 HCAPLUS

DOCUMENT NUMBER: 129:287510
TITLE: Measurement of Candida-specific blastogenesis: comparison of carboxyfluorescein succinimidyl ester labeling of T cells, thymidine incorporation, and CD69 expression
AUTHOR(S): Angulo, R.; Fulcher, D. A.
CORPORATE SOURCE: Department Immunopathology, Institute Clinical Pathology Medical Research, Westmead Hospital, Sydney, Australia
SOURCE: Cytometry (1998), 34(3), 143-151
CODEN: CYTODQ; ISSN: 0196-4763
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Measurement of the T cell blastogenic response to **Candida** may be useful in the evaluation of patients with suspected immunodeficiency. The classic blastogenesis **assay** is based on uptake of [3H]thymidine by peripheral blood lymphocytes stimulated with **Candida antigens** for 5 days. An alternative approach involves staining peripheral blood lymphocytes with the intracellular **fluorescent** dye carboxyfluorescein succinimidyl ester (CFSE) and measuring mitotic activity by the successive twofold redns. in **fluorescent** intensity using flow cytometry (FCM). The two approaches were compared in 16 subjects who demonstrated various proliferative responses to **Candida**. FCM-derived indexes all involved initial gating on CD3+ T cells and included (1) blastic transformation as measured by changes in light scatter, (2) cell division, measured by CFSE **fluorescence**, and (3) CD69 expression. A good correlation was found between [3H]thymidine uptake and CFSE-derived indexes, irresp. of the anal. algorithm used to interpret CFSE division profiles. Furthermore, significant T cell proliferation occurred only in subjects who had none or more symptomatic episodes of vaginal candidiasis whereas controls with no such history, and patients with chronic vaginal **infection**, showed minimal proliferation. The increase in proportion of CD69+ T cells in culture also correlated with the blastogenic response to **Candida**, but less well than mitotic indexes. CFSE-derived indexes of T cell blastogenesis to **Candida** are equiv. to [3H]thymidine-based **assays** and may allow useful lab. distinction between subjects who have been exposed to and recovered from vaginal **Candida infection**, who have a strong proliferative response, from those with no exposure or chronic **infection** who demonstrate a poor response.

L12 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:17021 HCAPLUS
DOCUMENT NUMBER: 126:102400
TITLE: Over-expression of Saccharomyces cerevisiae hsp90 enhances the virulence of this yeast in mice
AUTHOR(S): Hodgetts, Samantha; Matthews, Ruth; Morrissey, Graham; Mitsutake, Kotaro; Piper, Peter; Burnie, James
CORPORATE SOURCE: Department of Medical Microbiology, Clinical Sciences Building, Manchester Royal Infirmary, Oxford Road, Manchester, M13 9WL, UK
SOURCE: FEMS Immunology and Medical Microbiology (1996),

16(3-4), 229-234
CODEN: FIMIEV; ISSN: 0928-8244
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Saccharomyces cerevisiae, a yeast of low pathogenic potential, is a rare but well-documented cause of invasive **infections** in humans. The yeast **Candida albicans** is a much commoner cause of significant and life-threatening **infections**. In such **infections** the heat shock protein hsp90 is an **immunodominant antigen** assocd. with protective humoral immunity. In this study it was shown that over-expression of S. cerevisiae hsp90, the amino acid sequence of which shows 84% **identity** to C. **albicans** hsp90, significantly increased the virulence of a lab. strain of S. cerevisiae in mice, both in terms of colony counts in the kidney, liver and spleen, and in terms of mortality. This is the first direct evidence that hsp90 is a virulence factor.

L12 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:130589 HCAPLUS
DOCUMENT NUMBER: 124:172929
TITLE: Cloning, characterization, and epitope expression of the major **diagnostic** antigen of Paracoccidioides brasiliensis
AUTHOR(S): Cisalpino, Patricia S.; Puccia, Rosana; Yamauchi, Lucy M.; Cano, Maria I. N.; Franco da Silveira, J.; Travassos, Luiz R.
CORPORATE SOURCE: Dep. Microbiol., Univ. Fed. Sao Paulo, Sao Paulo, 04023-052, Brazil
SOURCE: J. Biol. Chem. (1996), 271(8), 4553-60
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The 43,000-Da glycoprotein (gp43) of Paracoccidioides brasiliensis is an **immunodominant antigen** for antibody-dependent and immune cellular responses in patients with paracoccidioidomycosis. To **identify** the peptide epitopes involved in the immunol. reactivities of the gp43 and to obtain highly specific recombinant mols. for **diagnosis** of the **infection**, genomic and cDNA clones representing the entire coding region of the **antigen** were sequenced. The gp43 open reading frame was found in a 1,329-base pair fragment with 2 exons interrupted by an intron of 78 nucleotides. The gene is present in very few copies per genome, as indicated by Southern blotting and chromosomal mega-restriction anal. A single transcript of 1.5 kilobase pairs was verified in the yeast phase. The gene encodes a polypeptide of 416 amino acids (Mr 45,947) with a leader peptide of 35 residues; the mature protein has a single N-glycosylation site. The deduced amino acid sequence showed similarities of 56-58% with exo-1,3-.beta.-D-glucanases from Saccharomyces cerevisiae and **Candida albicans**. However, the gp43 is devoid of hydrolase activity and does not cross-react immunol. with the fungal glucanases. Internal and COOH-terminal gene fragments of the gp43 were expressed as recombinant fusion proteins, which reacted with antibodies elicited against the native **antigen**.

L12 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:870306 HCAPLUS
DOCUMENT NUMBER: 123:280335
TITLE: Biochemistry and molecular biology of the main **diagnostic** antigen of Paracoccidioides brasiliensis
AUTHOR(S): Travassos, Luiz R.; Puccia, Rosana; Cisalpino, Patricia; Taborda, Carlos; Rodrigues, Elaine G.; Rodrigues, Mauricio; Silveira, Jose F.; Almeida, Igor C.
CORPORATE SOURCE: Escola Paulista de Medicina, Universidade Federal de Sao Paulo, Sao Paulo, 04023-062, Brazil
SOURCE: Arch. Med. Res. (1995), 26(3), 297-304
CODEN: AEDEER; ISSN: 0188-4409
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 30 refs. The 43,000 dalton glycoprotein of Paracoccidioides brasiliensis (gp 43) is the main exocellular **antigen** recognized by sera from patients with paracoccidioidomycosis in a variety of serol. **assays**. Specific conformational peptide epitopes are recognized by the human antibodies as detd. by **antigen** deglycosylation. Procedures for the purifn. of the gp43 using immunoaffinity chromatog. have been described. The secretion of the gp43 as a function of the growth curve, its partial aggregation with a proteolytic enzyme, ability to bind laminin, as well as to form circulating immunocomplexes in vivo could play a role in pathogenesis. Crude **antigenic** prepns. depleted of gp43 epitopes lost their ability to elicit pos. skin tests. Accordingly, the purified gp43 mol. induced delayed hypersensitivity reactions in man and **infected** animals, caused a T-CD4-dependent proliferation of lymph node cells from mice immunized with it, and of peripheral blood lymphocytes from an individual sensitized to P. brasiliensis by prolonged contact with the fungus. To **identify** the **immunodominant** epitopes in both humoral and cellular reactions, the gp43 gene has been cloned, sequenced, and partly expressed. It bears peptide sequences homologous to those of .beta.-1,3-glucanases from **Candida albicans** and Saccharomyces cerevisiae but has no enzymic activity itself. The mol. wt. of the unglycosylated **antigen** is 42,227. A single N-linked oligosaccharide chain in the gp43 contains .alpha.-D-mannopyranosyl, .beta.-D-galactofuranosyl and N-acetylglucosaminyl units with the predominant ratio of 10:2:2, and characteristics of a high mannose type.

L12 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:832241 HCAPLUS
DOCUMENT NUMBER: 123:331671
TITLE: Molecular cloning and expression of a 70-kilodalton heat shock protein of Candida albicans
AUTHOR(S): La Valle, Roberto; Bromuro, Carla; Ranucci, Lorella; Muller, Hans-Michael; Cristanti, Andrea; Cassone, Antonio
CORPORATE SOURCE: Department of Bacteriology and Medical mycology, University of Rome La Sapienza, Rome, Italy
SOURCE: Infect. Immun. (1995), 63(10), 4039-45

CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB By screening an expression library of the yeast form of **Candida albicans** with a serum directed against whole fungal cells, a cDNA (2,325 bp) encoding a stress protein of C. **albicans** was cloned and sequenced. The cloned sequence (CaRLV130) **identified** a single open reading frame with a length of 1,968 bp coding for a protein contg. 656 amino acid residues (70 kDa). The deduced amino acid sequence was 84% similar to the sequence of the Saccharomyces cerevisiae SSA1 gene, which encodes one member of the 70-kDa heat shock protein (Hsp70) family. The relevant gene (C. **albicans** HSP70 gene [CaHSP70]) was localized on the highest-Mr (R1; approx. 3.8 Mb) chromosome of C. **albicans** as detd. by pulse-field electrophoresis. CaHSP70 was expressed after heat shock, as demonstrated by Northern (RNA) blotting and reverse transcriptase-PCR with specific pairs of oligonucleotide sequences and gene probes. A recombinant protein was obtained in Escherichia coli after cleaning of the full coding sequence into the BamHI site of the pDS56/RBSII6xhisE- plasmid and purifn. by nickel chelate affinity chromatog. The recombinant protein (6xhis-CaHsp70) was efficiently recognized in immunoblots by a monoclonal antibody directed against a common epitope of eukaryotic Hsp70 proteins, as well as by sera from normal human subjects. Moreover, immune mouse sera against the purified recombinant protein recognized native, heat-inducible constituents with sizes of around 70 kDa in whole-cell protein exts. of C. **albicans**. Overall, our data demonstrate that CaHSP70 encodes one member of a family of proteins (Hsp70) which usually represent highly conserved **immunodominant antigens** of **infectious** agents.

L12 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:404614 HCAPLUS
DOCUMENT NUMBER: 121:4614
TITLE: a subset of proteins found in culture supernatants of **Candida albicans** includes the abundant, **immunodominant**, glycolytic enzyme **enolase**
AUTHOR(S): Sundstrom, Paula; Aliaga, George R.
CORPORATE SOURCE: Health Sci. Cent., Univ. North Texas, Fort Worth, TX, USA
SOURCE: J. Infect. Dis. (1994), 169(2), 452-6
CODEN: JIDIAQ; ISSN: 0022-1899
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Immunoblot anal. showed that enolase is one of a subset of proteins found in cell supernatants of Candida albicans. Enzyme **assays** on whole cell exts. indicated that enolase is an abundant protein, comprising 0.7% and 2.0% of the total protein from yeast and hyphal forms of C. albicans, resp. Comparison of enolase enzyme activities in whole cell exts. and cell culture supernatants showed the enzyme to be located primarily within cells. Extracellular glyceraldehyde-3-phosphate dehydrogenase activity was absent or lower than that of enolase, despite equiv. intracellular levels. The results suggest that enolase, released from fungi in the absence of host factors, may contribute to enolase found circulating in the blood of patients with hematogenously disseminated

candidiasis. In addn., the release from cells of highly immunogenic fungal proteins, such as enolase, may be important in defining the selective stimulation of host antifungal responses during **infection**.

L12 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:242078 HCAPLUS
DOCUMENT NUMBER: 120:242078
TITLE: Production of antibodies to antigens of Candida albicans in CBA/H mice
AUTHOR(S): Costantino, Paul J.; Franklyn, Kathleen M.; Gare, Norman F.; Warmington, John R.
CORPORATE SOURCE: Sch. Biomed. Sci., Curtin Univ. Technol., Perth, 6102, Australia
SOURCE: Infect. Immun. (1994), 62(4), 1400-5
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reported targets of the specific immune responses to C. **albicans** in human candidiasis include a 47-kDa breakdown product of a 90-kDa heat shock protein (HSP 90) and the 48-kDa **enolase**. These proteins are **immunodominant antigens** of C. **albicans**. Western blotting (immunoblotting) and immunopptn. were used to investigate the humoral response in a mouse model of systemic candidiasis. Resoln. of systemic candidiasis in CBA/H mice is assocd. with a high level of antibody reactivity to C. **albicans antigens**. A significant antibody response against a non-HSP **antigen** of 96 kDa which was distinct from the C. **albicans** HSP 90 **antigen** was **detected**. Significant antibody reactivity against an HSP of 75 kDa was also **detected**. Thus, the resoln. of C. **albicans infections** in CBA/H mice was assocd. with antibodies to an HSP and a non-HSP of 75 and 96 kDa, resp.

L12 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:233689 HCAPLUS
DOCUMENT NUMBER: 116:233689
TITLE: **Identification** of Candida albicans antigens reactive with immunoglobulin E antibody of human sera
AUTHOR(S): Ishiguro, Ayako; Homma, Michio; Torii, Shimpei; Tanaka, Kenji
CORPORATE SOURCE: Sch. Med., Nagoya Univ., Nagoya, 466, Japan
SOURCE: Infect. Immun. (1992), 60(4), 1550-7
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB C. **albicans antigens** which reacted with IgE antibodies of allergic patients were **detected** by immunoblotting. Of the various **antigens**, the 175-, 125-, 46-, 43-, and 37-kDa **antigenic** components reacted most frequently with the patient sera. To purify the major **antigens**, C. **albicans** cells were fractionated. The 46-, 43-, and 37-kDa **antigens** were recovered in cytoplasmic fractions, but the 175- and 125-kDa **antigens** were not recovered in any fraction. The 46-, 43-, and 37-kDa **antigens** were purified from cytoplasmic fractions by DEAE

and P11 ion-exchange chromatog. **Antigens** were isolated by cutting bands out of SDS-polyacrylamide gels. The purified components confirmed by immunoblotting were next processed for amino acid sequencing. Parts of the sequences of the 46-, 43-, and 37-kDa **antigens** had significant levels of homol. with Saccharomyces cerevisiae glycolytic enzyme **enolase**, phosphoglycerate kinase, and aldolase, resp. Rabbit IgG antibodies prepd. against the 46- and 43-kDa **antigens** strongly cross-reacted with the homologous proteins of S. cerevisiae. However, S. cerevisiae **enolase** and phosphoglycerate kinase did not cross-react with IgE of patient sera. Thus, IgE antibodies against only small parts of their epitopes are elevated in the allergic patients. Since **enolase** is reported to be a major **antigen** for systemic candidiasis, this enzyme may be the **immunodominant** protein in both allergies and fungal **infections**.

L12 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:100561 HCAPLUS
DOCUMENT NUMBER: 106:100561
TITLE: Isolation of **immunodominant antigens** from sera of patients with systemic candidiasis and characterization of serological response to **Candida albicans**
AUTHOR(S): Matthews, Ruth C.; Burnie, James P.; Tabaqchali, Soad
CORPORATE SOURCE: Dep. Med. Microbiol., St. Bartholomew's Hosp. Med. Coll., West Smithfield/London, EC1A 7BE, UK
SOURCE: J. Clin. Microbiol. (1987), 25(2), 230-7
CODEN: JCMIDW; ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Candidal **antigens** were isolated by affinity chromatog. from the sera of patients with disseminated C. **albicans infections**. The **immunodominant** 47-kilodalton (kDa) **antigen** appeared to be a heat-stable breakdown product of several larger heat-labile components (84-92, 74-79, and 66-72 kDa). It was undetectable in normal sera and sera from 4 patients with systemic C. parapsilosis, C. tropicalis and C. krusei **infections**. Serum samples from 92 patients with proven systemic C. **albicans infections** were examd. by the immunoblot technique. Seventy-four patients had **detectable** antibody, and 92% of these produced antibody to the 47-kDa **antigen**. All survivors had major serol. responses to this **antigen**, whereas patients who died had no, minor, or fading responses. Fifty-five of the patients were neutropenic following cytotoxic chemotherapy for malignancies, usually lymphoproliferative disorders (hematol. patients). The remainder were surgical or medical patients (nonhematol.). Hematol. patients differed from nonhematol. patients in the range of **antigens** that were commonly recognized by their immune systems, although antibodies to the 47- and 60-kDa **antigens** were frequently present in both groups. They also differed in that they produced mainly an IgM response, failing to seroconvert to IgG. This did not reduce survival rates, which were similar in both groups. It may be responsible, however, for the lower **antigen** titers that were obsd. in hematol. patients when measured by reverse passive latex agglutination.

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File 155:MEDLINE(R) 1966-2002/Jul W4
File   5:Biosis Previews(R) 1969-2002/Jul W4
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         (c) 1998 Inst for Sci Info
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         (c) 2002 Inst for Sci Info
?ds

Set     Items   Description
S1        411   (CANDIDA OR ALBICANS?)(S)(ANTIGEN? OR AG OR ENOLASE?) AND -
              (DIAGNOS? OR ASSAY? OR DETECT?) AND (COLOR? OR COLOUR? OR FLU-
              ORES? OR RADIOACTIV?)
S2        222   RD (unique items)
S3         24   S2 (S)(IMMOBIL? OR INERT OR EMBED? OR CONJUGATE?)
?t3/3 ab/1-24

 3/AB/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07723346   93246908   PMID: 8483055
  Characterization of two monoclonal antibodies against secretory
proteinase of Candida tropicalis DSM 4238.
  Borg-von Zepelin M; Gruness V
  Institute of Hygiene, Department of Medical Microbiology, Gottingen,
Germany.
  Journal of medical and veterinary mycology : bi-monthly publication of
the International Society for Human and Animal Mycology (ENGLAND)  1993,
31 (1) p1-15, ISSN 0268-1218  Journal Code: 8605493
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: Completed
  Two murine IgM monoclonal antibodies (mAb; MT1 and MT2), which were
produced against the secretory aspartic proteinase of Candida tropicalis
DSM 4238, are described. Both antibodies reacted with the native and
denatured conformations of the homologous proteinase antigen but showed
different patterns of reactivity with other related proteinases ( Candida
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albicans CBS 2730, serotype A; C. albicans ATCC 48867, serotype B; Candida parapsilosis DSM 4237) and with porcine pepsin. Neither of the antibodies inhibited the proteolytic activity of the homologous enzyme. MT1 also reacted with mannoproteins of C. tropicalis DSM 4238 and C. albicans CBS 2730 and immunofluorescence revealed that this antibody bound to the surface of blastoconidia and pseudomycelia of these two Candida species. A reaction with blastoconidia only was observed with C. albicans serotype B. MT1 also reacted weakly with Candida guilliermondii, but not with C. parapsilosis, Candida glabrata, Candida krusei or Candida kefyr. MT2 did not bind to fungal surfaces. Preliminary experiments suggested that mAb MT1 may recognize a carbohydrate epitope, while MT2 binds to an epitope consisting of the protein part of the enzyme. The two antibodies were used in an ELISA for the detection of proteinase antigen . ELISA with MT1 or MT2 as coating antibodies and a specific protein epitope recognizing mAb-biotin conjugate was able to detect 4 ng ml-1 of antigen . Trials with 26 sera from fungemic patients and 14 sera from controls suggest that MT2 is of potential value in antigen -directed serodiagnosis.

3/AB/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07498046 93011833 PMID: 1397200
Immunohistologic diagnosis of systemic mycoses: an update.
Kaufman L
Mycotic Diseases Branch, Centers for Disease Control, Atlanta, Georgia 30333.
European journal of epidemiology (ITALY) May 1992, 8 (3) p377-82, ISSN 0393-2990 Journal Code: 8508062
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Fluorescent antibody, immunoperoxidase and gold-silver staining methods for the rapid and accurate diagnosis of systemic mycotic infections are currently performed in a few specialized laboratories. These methods have proved applicable to formalin-fixed, paraffin- embedded tissues, and are reliable for identifying therein antigens of infectious dimorphic, monomorphic filamentous, and yeast-like fungal pathogens, i.e., Aspergillus spp., Blastomyces dermatitidis, Candida spp., Coccidioides immitis, Cryptococcus neoformans, Fusarium spp., Histoplasma capsulatum, Paracoccidioides brasiliensis, Pseudallescheria boydii, and Sporothrix schenckii. Most of the available reagents are derived from multiple adsorbed polyclonal antisera. However, problems occur in the production of uniform and standardized species- or genus- specific antibodies. Monoclonal antibodies, although promising, have to date not eliminated these problems. Immunohistologic methods will become more routinely used in clinical laboratories as these problems are resolved and more sensitive and specific reagents become commercially available.

3/AB/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06639445 90336462 PMID: 2379452
Flow cytometric assay for the measurement of human bone marrow phenotype, function and cell cycle.
Lund-Johansen F; Bjerknes R; Laerum O D
Department of Pathology, Gade Institute, Bergen, Norway.
Cytometry : the journal of the Society for Analytical Cytology (UNITED STATES) 1990, 11 (5) p610-6, ISSN 0196-4763 Journal Code: 8102328

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

A flow cytometric assay for the measurement of human bone marrow and blood leukocyte antigen expression, phagocytosis, and proliferation is described. Subpopulations of leukocytes were identified by their light scatter characteristics, and the expression of a myeloid differentiation antigen (designated CDw65) determined following incubation with CDw65 specific fluorescein -isothiocyanate (FITC) conjugated monoclonal antibodies (VIM2). Incubation of leukocytes with ethidium monoazide (EMA) labeled Candida albicans followed by staining with FITC conjugated VIM2 allowed the combined determination of cellular CDw65 expression and phagocytic capacity. In addition, immunostained leukocytes were fixed, and their DNA labeled with propidium iodide (PI), before CDw65 expression was measured for cells in different phases of the cell cycle. The method allows evaluation of phenotypic and functional heterogeneity, as well as cell cycle parameters, within subpopulations of cells during hematopoietic differentiation.

3/AB/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05679049 88104801 PMID: 2827543

Detection of an antigen related to systemic Candida infection using a monoclonal antibody conjugated to colloidal gold]

Detection d'un antigene temoin d'infection systemique a Candida a l'aide d'un anticorps monoclonal couple a l' or colloidal.

Poulain D; Ayadi A; Fruit J

Unite INSERM 42, Villeneuve d'Ascq.

Annales de biologie clinique (FRANCE) 1987, 45 (5) p565-72, ISSN 0003-3898 Journal Code: 2984690R

Document type: Journal Article ; English Abstract
Languages: FRENCH
Main Citation Owner: NLM
Record type: Completed

Previously we showed it was possible to detect antigenemia associated with systemic candidiasis using an anti-C. albicans monoclonal antibody conjugated to colloidal gold. The technique being used, known as Immuno-Gold-Silver staining (IGSS), is applied to serum dots on cellulose nitrate. It is very simple in practice, the results of the reaction being visible with the naked eye. The diagnostic value of IGSS has been compared, on the one hand, with that of the anti- Candida antibody detection by co-counterimmunoelectrophoresis and indirect immunofluorescence, on the other hand with that of the antigen detection using the Cand-Tec commercial test. The specificity and sensitivity of these methods have been established in relation to sera of 79 subjects shared out into 4 groups: sound-subjects, patients having developed systemic candidiasis following surgery, leukemic patients apparently uninfected with Candida and leukemic patients suffering from systemic candidiasis. The IGSS which is slightly less specific than the Cand Tec makes it possible to diagnose a much greater number of infections. Selected bioclinical observations show that there exists complementarity between the detection tests of antibodies and those of antigens and that it is possible to attribute a prognosis value to antigenemia detected with the IGSS dot method.

3/AB/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05286413 87034246 PMID: 2429989
Monoclonal antibodies against Candida tropicalis mannan: antigen detection by enzyme immunoassay and immunofluorescence.
Reiss E; de Repentigny L; Kuykendall R J; Carter A W; Galindo R; Auger P; Bragg S L; Kaufman L
Journal of clinical microbiology (UNITED STATES) Nov 1986, 24 (5) p796-802, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Three strains of mice were immunized with Candida tropicalis cell walls, and antibodies against mannan were detected by indirect enzyme immunoassay (EIA) in 3 of 9 BALB/c mice, 4 of 11 C57BL/6 mice, and 4 of 8 CFW mice. Responding mice produced immunoglobulin M (IgM), but IgG was not detected in their sera. Fusion of the high-responder BALB/c mouse with a plasmacytoma cell line resulted in 41 clones secreting antimannan monoclonal antibodies (MAbs). Four clones selected for propagation included one IgM and one IgG MAb that reacted with mannans of Candida albicans serotypes A and B and of C. tropicalis and two IgM MAbs specific for an epitope only in the mannans of C. albicans serotype A and C. tropicalis. One of the IgM MAbs, CB6, was an effective substitute for rabbit antibodies in the double-antibody sandwich EIA to detect antigenemia produced in rabbits infected with C. albicans A or C. tropicalis. It could function either as the peroxidase- conjugated indicator antibody or as the capture antibody. Two MAbs, CB6 (C. tropicalis and C. albicans A specific) and AC3 (C. tropicalis and C. albicans A and B specific), functioned in place of polyclonal antisera in the serotyping of C. albicans by immunofluorescence. There was 95.8% agreement in the results of serotyping using MAbs as reagents compared with rabbit antisera. Competitive inhibition in EIA between CB6 and monospecific antisera against C. albicans factors 1, 4, and 6 indicated that CB6 binds to an epitope which is probably factor 6. Serologic similarity between factor 4 and the binding site of MAb AC3 was also determined.

3/AB/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04064730 83059593 PMID: 6183432
Identification of salmonellae of serogroup C1 by immunofluorescence and co-agglutination with antiserum against an oligosaccharide-protein conjugate.
Ekwall E; Svenson S B; Lindberg A A
Journal of medical microbiology (ENGLAND) May 1982, 15 (2) p173-80, ISSN 0022-2615 Journal Code: 0224131
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Antiserum specific for salmonella O7 antigen raised by immunisation of rabbits with an artificial conjugate consisting of oligosaccharide and bovine serum albumin (Os-BSA). The oligosaccharide was a pentasaccharide isolated after cleavage of the O antigen polysaccharide chain of Salmonella thompson (O antigen 6, 7) with endo-glycanase from bacteriophage 14. The usefulness of the S. thompson Os-BSA antiserum for rapid and accurate identification of isolates of Salmonella of serogroup C1 (O6, 7) was shown by indirect immunofluorescence tests in which 77 strains of Salmonella of serogroup C1 were correctly identified from among 848 intestinal strains investigated. The finding that three strains of

Escherichia coli and most strains of Candida were also positive in immunofluorescence tests with this antiserum is readily explained by the known structural similarities among the antigenic determinants of E. coli, Candida and Salmonella of serogroup C1. The specificity of the antiserum for the O7 antigen determinant was further demonstrated in enzyme-linked immunosorbent assay tests and in co-agglutination tests with staphylococci sensitised with S. thompson Os-BSA antiserum.

3/AB/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03912152 82186836 PMID: 6281021
Immunological and virological investigations in Down's syndrome.
Fekete G; Kulcsar G; Dan P; Nasz I; Schuler D; Dobos M
European journal of pediatrics (GERMANY, WEST) Feb 1982, 138 (1) p59-62, ISSN 0340-6199 Journal Code: 7603873
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Lymphocyte responsiveness to phytohaemagglutinin and viral antigens was studied in children with Down's syndrome and in controls. Mitogen-responsiveness in the patients was significantly reduced as compared to the control values. Using the lymphocyte transformation test, trisomic patients showed more than a twofold increase in sensitivity to herpes simplex virus as compared to controls. The same test did not show any essential difference between the two groups when adeno- and influenza viruses were used. Immunofluorescence technique, with specifically conjugated antiviral sera, permitted the detection of specific fluorescence in 30% of the patients with Down's syndrome indicating the presence of oncogenic adenovirus type 12 antigen in the circulating lymphocytes. No antibodies--or only very low titres--against adeno- and herpes simplex viruses were demonstrated in the sera of trisomic patients. Mononuclear leukocytes from these patients often showed structural alterations. The incidence of infectious herpes simplex virus and Candida albicans in the saliva of patients was higher than in the control group. It seems that Down's syndrome involves partial disturbance of both the cellular and humoral immune functions--at least with respect to certain viral antigens .

3/AB/8 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03964700 BIOSIS NO.: 000076050266
IDENTIFICATION OF SALMONELLAE OF SEROGROUP C-1 BY IMMUNO FLUORESCENCE AND CO AGGLUTINATION WITH ANTI SERUM AGAINST AND OLIGO SACCHARIDE PROTEIN CONJUGATE
AUTHOR: EKWALL E; SVENSON S B; LINDBERG A A
AUTHOR ADDRESS: DEP. INFECTIOUS DISEASES, ROSLAGSTULL HOSP., BOX 5901, S-114 89 STOCKHOLM, SWEDEN.
JOURNAL: J MED MICROBIOL 15 (2). 1982. 173-180. 1982
FULL JOURNAL NAME: Journal of Medical Microbiology
CODEN: JMMIA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Antiserum specific for salmonella O7 antigen was raised by immunization of rabbits with an artificial conjugate consisting of

oligosaccharide and bovine serum albumin (Os-BSA). The oligosaccharide was a pentasaccharide isolated after cleavage of the O antigen polysaccharide chain of Salmonella thompson (O antigen 6, 7) with endo-glycanase from bacteriophage 14. The usefulness of the S. thompson Os-BSA antiserum for rapid and accurate identification of isolates of Salmonella of serogroup C1 (O6, 7) was shown by indirect immunofluorescence tests in which 77 strains of Salmonella of serogroup C1 were correctly identified from among 848 intestinal strains investigated. The finding that 3 strains of Escherichia coli and most strains of Candida were also positive in immunofluorescence tests with this antiserum is readily explained by the known structural similarities among the antigenic determinants of E. coli, Candida and Salmonella of serogroup C1. The specificity of the antiserum for the O7 antigen determinant was further demonstrated in enzyme-linked immunosorbent assays and in co-agglutination tests with staphylococci sensitized with S. thompson Os-BSA antiserum.

1982

3/AB/9 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03529786 BIOSIS NO.: 000073032866
ULTRASTRUCTURAL ORGANIZATION OF CANDIDA-ALBICANS BLASTO SPORE CELL WALL LOCALIZATION OF CHEMICAL AND ANTIGENIC COMPONENTS
AUTHOR: POULAIN D; TRONCHIN G; JOUVERT S; HERBAUT J; BIGUET J
AUTHOR ADDRESS: INSERM UNITE 42, DOMAINE CERTIA, 369 RUE JULES-GUESDE, 59650 VILLENEUVE D'ASCQ, FR.
JOURNAL: ANN MICROBIOL (PARIS) 132A (3). 1981. 219-238. 1981
FULL JOURNAL NAME: Annales de Microbiologie (Paris)
CODEN: ANMBC
RECORD TYPE: Abstract
LANGUAGE: FRENCH

ABSTRACT: The localization of chemical and/or antigenic components of C. albicans blastospore cell wall was studied. They concerned: PATAg reaction for the detection of polysaccharides on ultrathin sections associated with enzymatic digestions or polysaccharide extraction; the indirect immunoferritin method on intact cells; the indirect immunoperoxidase method on ultrathin section of water soluble embedding medium; the indirect immunofluorescence test, using patients and experimental sera. The cytochemical results confirmed a previously described 8 layer organization. The layer located near the plasmalemma must be considered as an important antigenic area. The mannans responsible for antigenic differences between strains of C. albicans and those supporting the serotype A activity were shown to be distributed among 2 of the described peripheral layers.

1981

3/AB/10 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04997870 Genuine Article#: UY199 Number of References: 46
Title: CELL-WALL PROTEIN AND GLYCOPROTEIN CONSTITUENTS OF ASPERGILLUS-FUMIGATUS THAT BIND TO POLYSTYRENE MAY BE RESPONSIBLE FOR THE CELL-SURFACE HYDROPHOBICITY OF THE MYCELIUM (Abstract Available)

Author(s): PENALVER MC; CASANOVA M; MARTINEZ JP; GIL ML
Corporate Source: UNIV VALENCIA,FAC FARM,DEPT MICROBIOL & ECOL,AVDA VICENTE ANDRES ESTELLES S-N/E-46100 BURJASSOT/VALENCIA/SPAIN/; UNIV VALENCIA,FAC FARM,DEPT MICROBIOL & ECOL/E-46100 BURJASSOT/VALENCIA/SPAIN/
Journal: MICROBIOLOGY-UK, 1996, V142, JUL (JUL), P1597-1604
ISSN: 1350-0872
Language: ENGLISH Document Type: ARTICLE
Abstract: Cell surface hydrophobicity (C5H) of Aspergillus fumigatus grown both in complex medium (yeast extract/peptone/dextrose;YPD) and minimal (Vogel's N) medium was monitored by assessing attachment of polystyrene microspheres to the cell surface. It was found that mature mycelium was hydrophobic, Treatment of intact mycelium with beta-mercaptoethanol (beta ME) abolished binding of the microspheres to hyphal elements, and coating of the microspheres with beta ME extracts from mycelium inhibited their attachment to intact mycelial cells, A, fumigatus mycelium was tagged in vivo with biotin and treated with beta ME, The beta ME extracts were analysed by SDS-PAGE and Western blotting with both peroxidase- conjugated -ExtrAvidin and concanavalin A (ConA). This procedure allowed identification of cell wall surface proteins and glycoproteins. Rabbit polyclonal antisera were raised against beta ME extracts obtained from cells grown in YPD and Vogel's N media. These antisera defined some major cell-wall-bound antigens, SDS-PAGE and Western blotting analysis of the cell wall material released by beta ME and adsorbed on polystyrene microspheres revealed about 19 protein species with apparent molecular masses ranging from 20 to 70 kDa, and two high-molecular-mass glycoproteins of 115 and 210 kDa. Treatment of cells grown in YPD, but not those grown in Vogel's N medium, with beta ME released a 55 kDa polypeptide able to adsorb to polystyrene microspheres that was detectable with the antisera, The ability to bind to polystyrene particles exhibited by several protein and glycoprotein species released by beta ME treatment suggested that these cell wall moieties possess exposed hydrophobic domains that could be responsible for the CSH of mycelium.

3/AB/11 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

00172475 CAB Accession Number: 731307255
Intravaginal immunization of humans with Candida albicans.
Waldman, R. H.; Cruz, J. M.; Rowe, D. S.
Univ. Florida Coll. Med., Gainesville, Fla. 32601.
Journal of Immunology vol. 109 (4): p.662-664
Publication Year: 1972 --
Language: English
Document Type: Journal article
Ten women volunteers with no evidence of C. albicans infection or any gynaecological abnormality were immunized. The C. albicans antigen was mixed with an inert , absorbable cream (1 g antigen in 100 ml cream) and approx. 20 ml of the mixture was applied to the cervical os and surrounding area 2-3 times. Antibody was measured by a radioactive single radial immunodiffusion technique and antibody activity was expressed as the area of the precipitin ring. Antibody to C. albicans was present in 8 of 10 sera before immunization. During immunization 3 of the 10 showed a X 2 rise in the area of serum antibody precipitation, the mean rise being from 41 to 66 mm2. None of the women had demonstrable antibody in her cervicovaginal secretions before immunization, or after 1 dose of vaccine. After the 2nd dose 6 showed detectable antibody; 2 of the 4 without demonstrable excretory antibody after 2 doses received a 3rd

dose and one had demonstrable antibody 3 weeks later. The mean rise in cervicovaginal secretion antibody was from <12 mm2 to 74 mm2.Two cervicovaginal samples with relatively high levels of antibody were subjected to serial absorption with specific anti-immunoglobulin antisera. Antibody was removed by absorption with anti-IgA but not appreciably by anti-IgG or anti-IgM. Results suggest that cervicovaginal secretion IgA antibody is locally produced and can be stimulated by local application of antigen . 11 ref.

3/AB/12 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01957467 SUPPLIER NUMBER: 67372580 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Immunological and In-Vivo Neurological Studies on a Benzoic Acid-Specific T-Cell-Derived Antigen-Binding Molecule from the Serum of a Toluene-Sensitive Patient.
KHALIL, ZEINAB; GEORGIOU, GEORGE M.; OGEDEGBE, HENRY; CONE, ROBERT E.; SIMPSON, FAYE; LITTLE, COLIN H.
Archives of Environmental Health, 55, 5, 304
Sept,
2000
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0003-9896
LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 9269 LINE COUNT: 00747

AUTHOR ABSTRACT: T-cell-derived antigen-binding molecules (TABMs) specific for benzoic acid were isolated from the serum of a toluene-sensitive patient. The resulting purified TABMs (BA-TABMs) did not contain immunoglobulin G and were associated with the cytokine transforming growth factor-(Beta) (TGF-(Beta)). BA-TABMs bound to benzoic acid conjugated to human serum albumin (BA-HSA), as well as to other chemicals conjugated to human serum albumin--including dinitrophenol and oxazolone. The binding of BA-TABMs to the conjugated chemicals increased the level of detectable TGF-(Beta), and a similar effect was observed with the unconjugated chemicals, benzoic acid and 2,4-dinitrophenol glycine. The increase in TGF-(Beta) was critically dependent on the ratio between BA-TABMs and the conjugated or unconjugated chemicals; the increase was optimum at intermediate concentrations and absent at low and high concentrations. The authors used an established animal model in vivo and demonstrated that TGF-(Beta) enhanced the inflammatory response induced by the release of neuropeptides from sensory nerves; this enhancement occurred in a dose-dependent manner. The BA-TABMs also enhanced this neurogenic inflammatory response in a dose-dependent manner, and this effect was blocked by anti-TGF-(Beta) antibody. When the authors added either BA-HSA or benzoic acid, the effect of BA-TABMs on neurogenic inflammation was further enhanced at intermediate concentrations of antigen and was unaltered or reduced at higher concentrations. TABMs specific to particular chemicals, as a result of their association with cytokines (e.g., TGF-(Beta)), may be implicated in symptom production in chemically sensitive patients.

3/AB/13 (Item 2 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01864476 SUPPLIER NUMBER: 55942342 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Activation-induced T-cell death and immune dysfunction after implantation

of left-ventricular assist device.
Ankersmit, Hendrik Jan; Tugulea, Sorina; Spanier, Talia; Weinberg, Alan D; Artrip, John H; Burke, Elizabeth M; Flannery, Margaret; Mancini, Donna; Rose, Eric A; Edwards, Niloo M; Oz, Mehmet C; Itescu, Silviu
The Lancet, 354, 9178, 550
August 14,
1999
PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 4494 LINE COUNT: 00369

ABSTRACT: Left-ventricular assist devices (LVAD) apparently alter the immune system and can lead to an increased risk of infection, according to a study of 78 patients. LVADs are used in patients with heart failure to help the heart pump blood.

3/AB/14 (Item 3 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01607515 SUPPLIER NUMBER: 17767352 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Applications and limitations of polymerase chain reaction amplification.
Ma, Tony S.
Chest, v108, n5, p1393(12)
Nov,
1995
PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 9682 LINE COUNT: 00794

3/AB/15 (Item 4 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01372551 SUPPLIER NUMBER: 13211474 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Use and interpretation of diagnostic immunologic laboratory tests. (Primer on Allergic and Immunologic Diseases, 3rd ed., Chapter 25)
Lopez, Manuel; Fleisher, Thomas; deShazo, Richard D.
JAMA, The Journal of the American Medical Association, v268, n20, p2970(21)
Nov 25,
1992
PUBLICATION FORMAT: Magazine/Journal ISSN: 0098-7484 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 18561 LINE COUNT: 01605

ABSTRACT: There are many laboratory tests that can be used to diagnose immunologic disorders. Various types of electrophoresis can distinguish between the different types of immunoglobulins (antibodies) and detect any abnormalities in antibody production. Monoclonal antibodies can be used to detect abnormalities in T cell and B cell production. The neutrophil is a cell responsible for identifying and destroying invading bacteria. There are several tests that can detect abnormal neutrophil function. Skin tests can be used to detect anergy, a state of delayed or diminished sensitivity to specific antigens. They can also be used to detect hypersensitivity to antigens (allergy). There are tests to measure the functioning of the complement system, which is also involved in destroying foreign cells. There are many tests to detect immune disorders in connective tissue diseases and infectious diseases.

3/AB/16 (Item 5 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01310818 SUPPLIER NUMBER: 11562050 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Reactivity of infiltrating T lymphocytes with microbial antigens in Crohn's disease.
Pirzer, Ursula; Schonhaar, Axel; Fleischer, Bernhard; Hermann, Elisabeth; Zum Buschenfelde, Karl-Herman Meyer
The Lancet, v338, n8777, p1238(2)
Nov 16,
1991
PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 1117 LINE COUNT: 00119

ABSTRACT: Crohn's disease is an inflammatory disease that affects portions of the small intestine. Although an unusual immune system response is suspected to play a role, the nature and cause of the response are unknown. The digestive tract serves as a breeding ground for bacteria. Colonization of the digestive tract with bacteria is normal and necessary for proper digestion. However, the intestines must provide a barrier for some organisms that are normally in the gut, but may be fatal if they spread into other body cavities. Although, T cells that circulate in the blood are part of the body's defense against foreign organisms, T cells in the intestines are largely unreactive to bacteria when tested in the laboratory. This is thought to represent a normal suppression of their responses. An investigation of patients with Crohn's disease suggests that the physiologically normal unresponsiveness to bacterial antigens by intestinal T cells in healthy subjects may be abrogated among these patients. Six Crohn's disease patients participated in the study; T cells were obtained from the blood; from regions of the intestines which were not inflamed; and from inflamed intestinal mucosa. When T cells were exposed to a variety of bacteria, the T cells from the blood vigorously responded. T cells taken from normal intestinal mucosa were unresponsive, but T cells from the inflamed region of the intestines showed an increased response to all the bacteria tested. These results suggest that the immune response of T cells to antigens present in the gut may play an important role in the development of Crohn's disease. This observation may explain why patients with Crohn's disease experience some improvement when fed intravenously. It may be possible to alter the composition of the intestinal contents to achieve some improvement for patients with Crohn's disease. (Consumer Summary produced by Reliance Medical Information, Inc.)

3/AB/17 (Item 6 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01306794 SUPPLIER NUMBER: 11483371 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Association between secretor status and respiratory viral illness.
Raza, M.W.; Blackwell, C.C.; Molyneaux, P.; James, V.S.; Ogilvie, M.M.; Inglis, J.M.; Weir, D.M.
British Medical Journal, v303, n6806, p815(4)
Oct 5,
1991
PUBLICATION FORMAT: Magazine/Journal ISSN: 0959-8146 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 2687 LINE COUNT: 00276

ABSTRACT: Because of a genetic defect, some people do not secrete ABO blood group antigens into their bodily fluids. These individuals are more susceptible to certain bacterial and fungal infections. This study examined if nonsecretors are also more susceptible to viral infections. An enzyme linked immunosorbent assay (ELISA) was developed to identify secretors and nonsecretors on the basis of saliva samples. The test was performed using nasal secretions obtained from 584 patients who were hospitalized for a viral respiratory illness. The proportion of patients that were secretors versus nonsecretors was determined for each type of viral illness, and proportions were compared with those found in the general population. In the local population, it was estimated that 72 percent were secretors. The proportion of patients who were secretors was significantly higher than that of the general population; viruses commonly detected included influenza A and B viruses (86 percent), rhinovirus (88 percent), respiratory syncytial virus (89 percent), and echoviruses (100 percent). These results indicated that secretors were more susceptible to viral respiratory disease, contrary to the findings regarding bacterial disease. (Consumer Summary produced by Reliance Medical Information, Inc.)

3/AB/18 (Item 7 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01253911 SUPPLIER NUMBER: 09030852 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Antimicrobial actions of calcium binding leucocyte L1 protein, calprotectin.
Steinbakk, Martin; Naess-Andresen, Carl-Fredrik; Lingaas, Egil; Dale, Inge; Brandtzaeg, Per; Fagerhol, Magne K.
The Lancet, v336, n8718, p763(3)
Sept 29,
1990
PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 1500 LINE COUNT: 00160

ABSTRACT: The possibility that a protein associated with human leukocytes (white blood cells), called L1, has antimicrobial action (combats microorganisms) was investigated by incubating 65 strains of yeast and several bacteria with L1 under culture conditions. L1 was collected from leukocytes in donated blood. It was found that the protein was active against strains of Candida (a yeast), as well as against several types of bacteria (Escherichia coli, Klebsiella, and staphylococci). In some cases, the concentration of L1 needed to inhibit the growth of organisms was lower than its concentration in normal blood. Although L1 is composed of polypeptide chains that can bind calcium ions, its antimicrobial action was similar whether calcium was present or not, indicating that calcium may not be essential for its action. The inhibitory effect of L1 depended on the medium in which the reaction took place, with one type of agar clearly supportive of its action. The white blood cells and epithelial (lining) cells where L1 protein is found are ''ideal'' sites for a protein with antimicrobial action. The name ''calprotectin'' is proposed for this protein. (Consumer Summary produced by Reliance Medical Information, Inc.)

3/AB/19 (Item 8 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01236600 SUPPLIER NUMBER: 08918311 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Serum antibodies to Giardia lamblia by age in populations in Colorado and

Thailand.
Janoff, Edward N.; Taylor, David N.; Echeverria, Peter; Glode, Mary P.; Blaser, Martin J.
The Western Journal of Medicine, v152, n3, p253(4)
March,
1990
PUBLICATION FORMAT: Magazine/Journal ISSN: 0093-0415 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 3132 LINE COUNT: 00260

ABSTRACT: The human immune system consists of cells and factors that inactivate invading foreign substances called antigens. In the presence of antigens, the immune B cell produces specialized proteins called antibodies, also known as immunoglobulins (Ig), that specifically bind and inactivate the antigens. There are various types of Ig, including IgG, the major antibody against infection; IgA, the main antibody in body secretions such as tears; and IgM, the antibody produced in the early phase of infection. Giardia lamblia, a ubiquitous protozoan, causes diarrhea, fever, cramps, nausea, vomiting, and weakness. The blood levels of various Ig to the protozoa G. lamblia were measured in infected patients from Denver, Colorado and Soongnern, Thailand. The blood levels of IgG, IgM, and IgA were increased in both patient groups during childhood, although children from Soongnern, Thailand had higher levels of each type of Ig than children from Denver. IgM levels decreased steadily with age, whereas IgA levels remained high among patients from Thailand. The incidence of G. lamblia infection among children aged one to four years was 26.5 percent in children from Thailand and 14.3 percent in children from Colorado. Similarly, among adults, the prevalence of G. lamblia infection was 14 percent in adults from Thailand and one percent in adults from Colorado. These findings suggest that early exposure to G. lamblia results in production of IgM, whereas recurrent exposure to the organism, such as occurs in Thailand, results in high levels of IgA. (Consumer Summary produced by Reliance Medical Information, Inc.)
AUTHOR ABSTRACT: We measured levels of antibodies to Giardia lamblia by age in serum specimens from persons in Denver, Colorado, and Soongnem, Thailand Serum levels of immunoglobulin 1g) G, IgM, and IgA G lamblia-specific antibodies measured by enzyme-linked immunosorbent assay increased substantially during childhood in both geographic areas, although children in Soongnem showed significantly higher mean levels of each antibody class P<.05). After adolescence, levels of G lamblia-specific IgM fell steadily with age in both populations. In contrast, specific IgA levels remained elevated throughout life among the Thai but decreased to low levels among adults in Denver Similarly, rates of carriage of G lamblia were high among children aged 1 to 4 years in Denver and Soongnem (14.3% versus 26.5%, respectively) but were much lower among adults in Denver O% versus 14%; P<.Ol). These data suggest that levels of G lamblia-specific 1gM may reflect exposure to the parasite early in life in both areas. Levels of parasite-specific IgA may reflect recurrent exposure to G lamblia in Soongnem, where G lamblia is endemic, but less frequent exposure to the parasite in Denver, where exposure is often episodic.

Janoff EN, Taylor DN, Echeverria P, et al: Serum antibodies to Giardia lamblia by age in populations in Colorado and Thailand. West J Med 1990 Mar; 152:253-256)

3/AB/20 (Item 9 from file: 149)

01154089 SUPPLIER NUMBER: 06443561 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Diagnosis of trichomoniasis; comparison of conventional wet-mount

examination with cytologic studies, cultures, and monoclonal antibody staining of direct specimens. (Toward Optimal Laboratory Use)
Krieger, John N.; Tam, Milton R.; Stevens, Claire E.; Nielsen, Iris O.; Hale, Judith
JAMA, The Journal of the American Medical Association, v259, n8, p1223(5) Feb 26,
1988
PUBLICATION FORMAT: Magazine/Journal ISSN: 0098-7484 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional
WORD COUNT: 4006 LINE COUNT: 00345

AUTHOR ABSTRACT: The accuracy of(1) conventional wet-mount examination,(2) Papanicolaoustained gynecologic smears,(3) a direct slide test using fluorescein - conjugated monoclonal antibodies against Trichomonas vaginalis, and(4) two different culture media for the diagnosis of trichomoniasis in a high-risk population of 600 women was compared. Use of Feinberg-Whittington or Diamond's culture medium resulted in a diagnosis of 82 and 78 cases, respectively, and the combination of two cultures identified 88 infected women. In comparison, wet-mount examination detected only 53 (60%) of the cases. Cytologic smears were interpreted as positive for T vaginalis in 49 (56%) of the 88 cases but also resulted in seven false-positive smears, and specimens from 18 women with negative cultures were interpreted as "suspicious" for trichomoniasis. Monoclonal antibody staining detected 76 (86%) of the 88 positive specimens, including 27 (77%) of the 35 cases missed by wet-mount examination. In summary, wetmount and cytologic studies were insensitive, and cytology study was the least specific method for diagnosis of trichomoniasis. Direct immunofluorescence with monoclonal antibodies holds promise as a sensitive and specific alternative to cultures for rapid detection of T vaginalis in clinical specimens.

3/AB/21 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

014098303
WPI Acc No: 2001-582517/200165
XRAM Acc No: C01-172815
XRPX Acc No: N01-433961
New device for in situ analysis and treatment, useful for diagnosis and drug delivery, comprises microsystem connected to flexible stem, maneuvered from remote site
Patent Assignee: BENHAMOU A (BENH-I); POMPIDOU A (POMP-I); BENHAMOU A C (BENH-I)
Inventor: BENHAMOU A C; POMPIDOU A; BENHAMOU A
Number of Countries: 095 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200169257	A2	20010920	WO 2001FR803	A	20010316	200165	B
FR 2806481	A1	20010921	FR 20003474	A	20000317	200165	
AU 200146608	A	20010924	AU 200146608	A	20010316	200208	

Priority Applications (No Type Date): US 2000246571 P 20001108; FR 20003474 A 20000317
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200169257	A2	F	42	G01N-033/543	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL

PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
FR 2806481 A1 G01N-033/543
AU 200146608 A G01N-033/543 Based on patent WO 200169257

Abstract (Basic): WO 200169257 A2
Abstract (Basic):

NOVELTY - A device (A) for chemical or biological analysis and for in situ treatment comprising a microsystem (MS) for investigating a substrate and/or for delivering active agents to it and a flexible stem having one end fixed to MS and the other end designed for maneuvering MS, when used for investigating a substrate, MS is not based on analysis of the emission or detection of a fluorescent signal, is new.

USE - The device is used for in situ investigations (monitoring or diagnostic) and/or treatment of e.g. tissues or organs, in vivo (in plants or animals) or in vitro (cell, organ or tissue cultures). A particular application is targeted intracardial delivery of gene therapy agents, but cancer cells, foci of infection etc. can also be treated. Diagnostic uses involve detecting nucleic acids, proteins, microorganisms etc. Typical of many other uses for (A) include gene sequencing and identification, screening for therapeutic activity, forensic studies, selection of plant varieties, detecting genetically modified organisms and in paleontology.

ADVANTAGE - (A) can be maneuvered from a distant site and is not implanted, or released, in situ, so is at most minimally invasive. It can detect any type of substance that has a specific binding partner, particularly those that are restricted to organs, tissues and cells. (A) can be used to analyze or treat sites that are not accessible by conventional methods.

pp; 42 DwgNo 0/6

3/AB/22 (Item 2 from file: 351)
DIALOG(R)File 351:Derwent WPI

012841225
WPI Acc No: 2000-013057/200001
XRAM Acc No: C00-002422
XRPX Acc No: N00-010131
Detecting a biologically active immunoglobulin for an antigen using isolated FC regions
Patent Assignee: HESKA CORP (HESK-N)
Inventor: DE WECK A J; WASSOM D L
Number of Countries: 086 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9951988	A1	19991014	WO 99US7530	A	19990406	200001	B
AU 9933845	A	19991025	AU 9933845	A	19990406	200011	
EP 1068535	A1	20010117	EP 99915297	A	19990406	200105	
			WO 99US7530	A	19990406		

Priority Applications (No Type Date): US 9899776 P 19980910; US 9881089 P 19980408
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9951988	A1	E	42	G01N-033/68	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK

SL TJ TM TR TT UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9933845 A Based on patent WO 9951988
EP 1068535 A1 E G01N-033/68 Based on patent WO 9951988
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Abstract (Basic): WO 9951988 A1
Abstract (Basic):

NOVELTY - Detecting a biologically active immunoglobulin that selectively binds to a specific allergen in a mammal, comprising contacting a putative mammalian sample with isolated Fc regions and detecting resulting complexes, is new.

DETAILED DESCRIPTION - Detecting a biologically active immunoglobulin that selectively binds to a specific allergen in a mammal, comprises:

(a) contacting a putative biologically active, allergen-specific immunoglobulin-containing composition from a mammal with an isolated mammalian Fcepsilon receptor (FcepsilonR) molecule and the specific allergen to form a FcepsilonR:immunoglobulin:allergen complex; and

(b) determining the presence of the immunoglobulin by detecting the complex.

INDEPENDENT CLAIMS are also included for the following:

(1) a method to detect a biologically active, allergen-specific immunoglobulin in a mammal, wherein a process using anti-IgE antibodies does not detect the immunoglobulin, comprising:

(a) contacting a putative biologically active, allergen-specific immunoglobulin-containing composition from said mammal with an isolated mammalian FcepsilonR molecule and with said specific allergen under conditions suitable for formation of a FcepsilonR:immunoglobulin:allergen complex; and

(b) determining the presence of the immunoglobulin by detecting the complex;

(2) a kit comprising a mammalian FcepsilonR molecule, an allergen, and a means for detecting an immunoglobulin; and

(3) an, allergen-specific immunoglobulin, which is a heat stable immunoglobulin that selectively binds to a mammalian FcepsilonR molecule.

USE - The process is useful for detecting a biologically active, allergen-specific immunoglobulin not detectable by a process using anti-IgE antibodies, e.g. for diagnosing allergies, asthma, atopic dermatitis and other skin diseases, hyper IgE syndrome, internal parasite infections, B cell neoplasia, and hay fever.

ADVANTAGE - The methods are performed in solution, do not require a washing step, and the compositions do not require dilution. The methods are able to detect allergic responses that are not detectable using anti-IgE antibody-based methods.

Sera collected form 188 allergic patients and 53 control patients (who scored negative by intradermal skin testing) were tested against a variety of allergens using FcepsilonR alpha-chain based and anti-IgE monoclonal antibody-based assays. Immunodot strips were produced with an antigen from at least 1 of Dermatophagoides pteronyssinus, D. farinae, Alternaria alternata, Aspergillus fumigatus, Cladosporium herbarum, Penicillium notatum, Candida albicans, cockroach, cat, dog, 6 grass mix, rye, olive birch, oak, hazel, olea, parietaria, Japanese cedar, mugwort, ribwort, milk, egg, peanut, celery, tomato, hazelnut, shrimp, wheat and soya allergens. The results of the tests indicated that a population of individuals (5-10 %) produce biologically active, allergen-specific immunoglobulins that are detected by a FcepsilonR molecule-based but not by anti-IgE antibody-based methods.

pp; 42 DwgNo 0/3

3/AB/23 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0283419 DBA Accession No.: 2002-05266 PATENT
Isolating fungal hemolysin from a fungus Stachybotrys chartarum, involves culturing fungus on synthetic medium, removing cells and debris from culture to recover supernatant and isolating homiletical active fractions - for use in cancer therapy, vaccine preparation, fungus infection prevention, and fungicide and antimicrobial preparation for use in building protection
AUTHOR: VESPER S J
PATENT ASSIGNEE: US ENVIRONMENTAL PROTECTION AGENCY 2001
PATENT NUMBER: WO 200192313 PATENT DATE: 20011206 WPI ACCESSION NO.: 2002-114326 (200215)
PRIORITY APPLIC. NO.: US 208301 (01.06.2000-2000US-208301) APPLIC. DATE: 20000601
LANGUAGE: English
ABSTRACT: DERWENT ABSTRACT: NOVELTY - Isolating fungal hemolysin (FH), comprising culturing a strain of fungus on a synthetic medium, removing cells and debris from the culture to recover supernatant and isolating homiletical active fractions, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) isolated FH or its active fragments obtained from Stachybotrys chartarum; (2) antibodies (I) to FH or its active fragments; (3) a composition (II) for treating cancer cells comprising FH conjugated to an antibody for the cancer cell; (4) a vaccine (III) to protect against infection by hemolysin producing fungi comprising an antigen or its active fragment, derivative, analog or variant to FH, and a carrier; (5) a composition for administration across the blood brain barrier comprising a combination of pore-forming FH and at least one pharmaceutically effective compound; and (6) an antibacterial or antifungal composition comprising a FH. BIOTECHNOLOGY - Preferred Method: FH isolation involves culturing a strain of fungus on tryptic soy broth. The homiletical fractions are isolated by gel filtration. ACTIVITY - Cytostatic; fungicide. No biological data is given. MECHANISM OF ACTION - Selective killing of cancer cells by producing pores in cell membranes; vaccine. USE - Isolating fungal hemolysin from a fungus, preferably S. chartarum. A FH isolated from S. chartarum, Aspergillus fumigatus, Candida albicans , or Penicillium chrysogenum, is useful for altering immune function in a mammal. (I) is useful for determining if a mammal has been exposed to a hemolysin-producing fungus such as S. chartarum, A. fumigatus, C. albicans , or P. chrysogenum, which involves contacting a sample from the mammal with labeled (I) and detecting the label to determine the presence of antigen to FH. (I) used in the method is preferably labeled with enzyme, radioactive , chemiluminescent, or fluorescent labels. (II) is useful for treating cancer. (III) is useful for protecting against infection by hemolysin-producing fungi as described above. (All claimed). The isolated FH itself can also be used to determine if a person has produced antibodies in response to exposure to the fungus. The method of determining if a mammal has been exposed to hemolysin-producing fungus can be adapted to assay for exposure to or for the presence of any hemolysin-producing fungus. The fungal hemolysin isolation method is useful for screening hemolysin producing fungi present in buildings such as offices, homes, schools, or warehouses. Once a building has been found to contain problematic fungi the building is treated to remove or destroy the fungi. The screening

can then be repeated to ensure that the problematic fungi have been eliminated from the site. The isolated FH is useful for delivering large pharmaceutical molecules which cannot arrive at the brain because of their in ability to cross the blood-brain barrier. The FH molecules by creating pores in the cells which form the blood-brain barrier, are useful for delivering the drug to a proper location. The antibacterial or antifungal preparations comprising isolated FH can be used for creating an antimicrobial or antifungal effect in skin, walls, kitchen counters, or bathroom fixtures. ADMINISTRATION - (III) is administered by oral or sublingual route, or by injection. No dosage is suggested. EXAMPLE - Stachybotrys chartarum conidia were used to inoculate 500 ml of tryptic soy broth (TSB) in a one liter flask placed onto a incubator-shaker. After seven days of incubation, the cells and debris were removed from the culture by centrifuging and the supernatant was recovered. The supernatant was centrifuged. The concentrate was recovered. The concentrate was subjected to gel filtration using Sephadex G 100-50 hydrated in 0.2 M sodium azide for five days, and giving a final bed of 0.5x14 cm. Fractions of 0.25 ml were collected at 1.5 ml per hour using a fraction collector. Then, 10 microliters of each reaction was plated onto sheep's blood agar (SBA) and incubated at 37 degrees C and hemolysis noted. The homiletical active fractions were combined and isolated twice using the D-SALT (RTM) polyacrylamide 6000 desalting column. The final desalted solution was frozen at -80 degrees C and lyophilized. (26 pages)

3/AB/24 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0124216 DBA Accession No.: 91-11858 PATENT
Monoclonal antibody and hybridoma producing it - specific for Candida albicans, Candida tropicalis and Candida guilliermondii; potential application in disease diagnosis
PATENT ASSIGNEE: Shimadzu-Mfg. 1991
PATENT NUMBER: JP 3133394 PATENT DATE: 910606 WPI ACCESSION NO.: 91-211528 (9129)
PRIORITY APPLIC. NO.: JP 89271283 APPLIC. DATE: 891017
NATIONAL APPLIC. NO.: JP 89271283 APPLIC. DATE: 891017
LANGUAGE: Japanese
ABSTRACT: A monoclonal antibody (MAb) which forms a complex with antigen derived from Candida albicans , Candida tropicalis and Candida guilliermondii is new. Also claimed is the hybridoma producing the MAb which is formed by fusion of mouse myeloma cells with spleen cells obtained from a BALB/c mouse immunized with antigen from a Candida sp. Screening of the fused cell is carried out by ELISA. Cloning of the cell is carried out by limiting dilution. The obtained hybridoma is designated 6CA1-3 and secretes an IgM MAb. This MAb has specific activity against C. albicans and also reacts with C. tropicalis and C. guilliermondii. The MAb may be used for the detection of C. albicans in cells, tissues and body fluids. The MAb labeled with enzyme, fluorescent reagent, etc. may be used for the diagnosis of C. albicans infections. The MAb immobilized on an adsorbent may be used for partial purification of the immunogen. (6pp)
?ds

Set	Items	Description
S1	411	(CANDIDA OR ALBICANS?)(S)(ANTIGEN? OR AG OR ENOLASE?) AND - (DIAGNOS? OR ASSAY? OR DETECT?) AND (COLOR? OR COLOUR? OR FLU-ORES? OR RADIOACTIV?)
S2	222	RD (unique items)

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S3          24   S2 (S)(IMMOBIL? OR INERT OR EMBED? OR CONJUGATE?)
S4           4   S2(S)IMMUNODOMIN?
S5           3   S4 NOT S3
?t5/3 ab/1-3

 5/AB/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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08350283 95109385 PMID: 7810383

The influence of Maloprim chemoprophylaxis on cellular and humoral immune responses to Plasmodium falciparum asexual blood stage antigens in schoolchildren living in a malaria endemic area of Mozambique.

Hogh B; Thompson R; Lobo V; Dgedge M; Dziegiel M; Borre M; Gottschau A; Streat E; Schapira A; Barreto J

Laboratory of Parasitology and Epidemiology Research Unit, Statens Seruminstitut, Copenhagen, Denmark.

Acta tropica (NETHERLANDS) Sep 1994, 57 (4) p265-77, ISSN 0001-706X Journal Code: 0370374

Document type: Clinical Trial; Journal Article; Randomized Controlled Trial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

We examined the impact of chemoprophylaxis on the cellular and humoral immune responses to polypeptides of the asexual Plasmodium falciparum blood stage antigens , the glutamate rich protein GLURP and Pf155/RESA, both of which in previous field studies have been identified as potentially protective antigens . The study was carried out in the Escola Primaria de Lingamo, a primary school in a suburban area of Maputo, Mozambique. A cohort of 392 schoolchildren (aged 7-12 years) was randomly allocated to two equal groups, one receiving chemoprophylaxis with dapsone/pyrimethamine (Maloprim), the other receiving placebo every week from December 1989 to November 1990. The groups were then followed until November 1991 without chemoprophylaxis. Cellular responses to immunodominant epitopes from Pf155/RESA and GLURP, and to non malaria antigens C. albicans and PPD, were assessed by lymphocyte proliferation assays in vitro. Anti-GLURP and anti-Pf155/RESA antibodies were detected by enzyme-linked immunosorbent assay (ELISA) and erythrocyte membrane immunofluorescence (EMIF), and total anti-P. falciparum antibodies were measured by indirect fluorescent antibody test (IFAT). Immunological reactivities were evaluated every six months, at the end of the rainy season and at the end of the dry season, both during the period of chemoprophylaxis and during the follow-up. The antibody response rate to the GLURP was lower in the Maloprim group than in the placebo group during the intervention phase. The lymphoproliferative response rate to the malaria antigens was significantly lower at the end of the rainy season than at the end of the dry season, but the difference between the experimental group and the control group of schoolchildren was not statistically significant. These results suggest that the antibody responses to the GLURP molecule and partly to the Pf155/RESA antigen in this study population were shortlived and dependent on frequent boostering, but whether these antigens play a role in the development of natural clinical immunity remains open. In the experimental group of schoolchildren weekly chemoprophylaxis successfully reduced the parasite rate during the rainy season from 43% to 4%, and during the dry season from 18% to 0%. Chemoprophylaxis may therefore have a useful role in combination with another partially effective malaria control measure such as insecticide-impregnated bed nets or a malaria vaccine.

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 5/AB/2     (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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07488004 93015738 PMID: 1400228
Molecular cloning of cDNA and analysis of protein secondary structure of Candida albicans enolase , an abundant, immunodominant glycolytic enzyme.
Sundstrom P; Aliaga G R
Department of Microbiology and Immunology, Texas College of Osteopathic Medicine, University of North Texas, Fort Worth 76107.
Journal of bacteriology (UNITED STATES) Nov 1992, 174 (21) p6789-99, ISSN 0021-9193 Journal Code: 2985120R
Contract/Grant No.: DE10144; DE; NIDCR
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
We isolated and sequenced a clone for Candida albicans enolase from a C. albicans cDNA library by using molecular genetic techniques. The 1.4-kbp cDNA encoded one long open reading frame of 440 amino acids which was 87 and 75% similar to predicted enolases of Saccharomyces cerevisiae and enolases from other organisms, respectively. The cDNA included the entire coding region and predicted a protein of molecular weight 47,178. The codon usage was highly biased and similar to that found for the highly expressed EF-1 alpha proteins of C. albicans . Northern (RNA) blot analysis showed that the enolase cDNA hybridized to an abundant C. albicans mRNA of 1.5 kb present in both yeast and hyphal growth forms. The polypeptide product of the cloned cDNA, which was purified as a recombinant protein fused to glutathione S-transferase, had enolase enzymatic activity and inhibited radioimmunoprecipitation of a single C. albicans protein of molecular weight 47,000. Analysis of the predicted C. albicans enolase showed strong conservation in regions of alpha helices, beta sheets, and beta turns, as determined by comparison with the crystal structure of apo- enolase A of S. cerevisiae. The lack of cysteine residues and a two-amino-acid insertion in the main domain differentiated C. albicans enolase from S. cerevisiae enolase . Immunofluorescence of whole C. albicans cells by using a mouse antiserum generated against the purified fusion protein showed that enolase is not located on the surface of C. albicans . Recombinant C. albicans enolase will be useful in understanding the pathogenesis and host immune response in disseminated candidiasis, since enolase is an immunodominant antigen which circulates during disseminated infections.

5/AB/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06609984 90307209 PMID: 2194959
Production and characterization of monoclonal antibodies to cell wall antigens of Aspergillus fumigatus.
Ste-Marie L; Senechal S; Boushira M; Garzon S; Strykowski H; Pedneault L; de Repentigny L
Department of Microbiology and Immunology, Faculty of Medicine, University of Montreal, Quebec, Canada.
Infection and immunity (UNITED STATES) Jul 1990, 58 (7) p2105-14, ISSN 0019-9567 Journal Code: 0246127
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Two murine monoclonal antibodies (MAbs) against Aspergillus fumigatus were produced and characterized. Splenocytes from cell wall-immunized BALB/c mice were fused with SP2/0 myeloma cells. The hybridomas were

screened with a cold alkali (CA) extract of mycelium containing protein, mannose, and galactose, and two MAbs of the immunoglobulin M class were purified from ascites fluid. MAbs 1 and 40 were characterized by double immunodiffusion against CA antigen , indirect enzyme immunoassay with mannans of Candida albicans serotypes A or B or Candida tropicalis, indirect immunofluorescence with C. albicans - or A. fumigatus-infected tissues, indirect immunofluorescence with smears of other pathogenic fungi, Western blotting (immunoblotting) with the lectin concanavalin A or BS-1 from the seeds of Bandeirea simplicifolia, and immunoelectron microscopy. MAb 1 did not cross-react with Candida mannan and recognized a periodate-sensitive, pronase- and heat-resistant epitope in CA antigen and three mannose- and galactose-containing components (80, 62, and 49 kilodaltons) of a mycelial homogenate. Immunoelectron microscopy demonstrated binding of MAb 1 to the inner cell wall and intracellular membranes of hyphae and conidia of A. fumigatus. Circulating antigen was detected in experimental invasive aspergillosis by inhibition enzyme immunoassay with MAb 1 and CA antigen . MAb 40 was a nonprecipitating antibody cross-reactive with Candida species, and competition for an epitope located diffusely in the cell wall of A. fumigatus hyphae was demonstrated by incubating MAb 40 with mannan of C. albicans serotype A. These results suggest that MAb 1 recognizes immunodominant oligogalactoside side chains of A. fumigatus galactomannan, while MAb 40 binds to mannopyranosyl side chains common to A. fumigatus galactomannan and C. albicans mannan.
?ds

Set	Items	Description
S1	411	(CANDIDA OR ALBICANS?)(S)(ANTIGEN? OR AG OR ENOLASE?) AND - (DIAGNOS? OR ASSAY? OR DETECT?) AND (COLOR? OR COLOUR? OR FLUORES? OR RADIOACTIV?)
S2	222	RD (unique items)
S3	24	S2 (S)(IMMOBIL? OR INERT OR EMBED? OR CONJUGATE?)
S4	4	S2(S)IMMUNODOMIN?
S5	3	S4 NOT S3
S6	69	S2 AND (ELISA OR EIA OR BILIGAND? OR ENZYME(W)LINKED OR FLUORO? OR CHEMILUMIN? OR RADIALIMMUNO? OR RADIOIMMUNO?)
S7	56	S6 NOT (S3 OR L5)
S8	61	S2 AND (ELISA OR EIA OR BILIGAND? OR ENZYME(W)LINKED OR FLUOROMET? OR CHEMILUMIN? OR RADIALIMMUNO? OR RADIOIMMUNO?)
S9	47	S8 NOT (S3 OR S5)
S10	46	S9 AND (ANTIBOD? OR AB OR MAB OR PAB)
S11	0	S9 AND (LIPOPROTEIN?(W)REMOV?(S)CHLOROFORM?)
S12	4	S9 AND CYTOPLASM?

?t12/3 ab/1-4

12/AB/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07502293 93026239 PMID: 1408018
Immunodiagnosis in oral candidiasis. A review.
Jeganathan S; Chan Y C
Department of Restorative Dentistry, Faculty of Dentistry, National University Hospital, Singapore.
Oral surgery, oral medicine, and oral pathology (UNITED STATES) Oct 1992, 74 (4) p451-4, ISSN 0030-4220 Journal Code: 0376406
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Detection of anti- Candida antibodies in sera and saliva of patients with oral candidiasis has been regarded as a valuable laboratory technique

in the diagnosis of the lesion. However, despite considerable research, the value of candidal immunodiagnosis remains controversial. Conflicting conclusions about the sensitivities and specificities of these techniques as applied to human sera and saliva have appeared. These controversies have arisen because of the use of different antigen preparations and immunologic techniques. For the present, the use of purified cytoplasmic protein antigen of Candida albicans and the ELISA technique seems to be the most reliable laboratory method.

12/AB/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06924279 91237310 PMID: 1709679
A cell surface/plasma membrane antigen of Candida albicans .
Li R K; Cutler J E
Department of Microbiology, Montana State University, Bozeman 59717.
Journal of general microbiology (ENGLAND) Mar 1991, 137 (Pt 3) p455-64, ISSN 0022-1287 Journal Code: 0375371
Contract/Grant No.: AI24912; AI; NIAID
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Antibody from BALB/cByJ mice immunized against a membranous fraction of Candida albicans agglutinated whole cells as well as the membranous fraction. Hybridoma techniques were used to isolate an IgM monoclonal antibody (mAb) designated 10G which agglutinated whole cells and reacted with the subcellular fraction. Yeast cells of 15 additional C. albicans strains and isolates of C. stellatoidea, C. tropicalis, C. intermedia and C. lusitaniae were also agglutinated by mAb 10G. The antigen was not detected on other fungi, including Candida krusei, C. utilis, Cryptococcus neoformans, Cr. albidus, Torulopsis glabrata, Rhodotorula spp. and Saccharomyces cerevisiae. To determine the cellular location of the epitope to which mAb 10G is specific, freeze-substitution was compared with traditional chemical fixation methods in preparation of samples for immunocolloidal gold electron microscopy (IEM). With both fixation procedures, the antigen recognized by mAb 10G was found randomly and densely concentrated on the plasma membrane on exponential-phase yeast-form cells and had a patchy distribution on the cell wall surface. Association of the antigen with the plasma membrane was confirmed by IEM of isolated membranes. On developing hyphal cells, antigen appeared first on the plasma membrane and later on the cell wall surface. Treatment of yeast cells with beta-mercaptoethanol and Zymolyase before fixation removed the antigen from the surface but left the cytoplasmic antigen undisturbed. Treatment of yeast cells or solubilized antigen with heat or proteolytic enzyme (trypsin, Pronase B, proteinase K) did not remove or destroy the antigen , suggesting a non-protein nature of the epitope.

12/AB/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06025686 89093974 PMID: 2642950
Development of a microsphere-based fluorescent immunoassay and its comparison to an enzyme immunoassay for the detection of antibodies to three antigen preparations from Candida albicans .
McHugh T M; Wang Y J; Chong H O; Blackwood L L; Stites D P
Department of Laboratory Medicine, University of California Medical Center, San Francisco 94143.
Journal of immunological methods (NETHERLANDS) Jan 17 1989, 116 (2)

p213-9, ISSN 0022-1759 Journal Code: 1305440
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

A sensitive assay for the simultaneous detection of multiple serum antibodies by flow cytometry was developed. Polystyrene microspheres of 5, 7 and 9.3 micron in diameter were used as solid supports for the attachment of three different antigen preparations from Candida albicans . These antigens were a whole cell extract; a cytoplasmic protein extract and a cell wall polysaccharide. Microsphere-associated fluorescence was quantitated by flow cytometry, with the different sized microspheres analyzed separately using electronic volume gating. This procedure allowed for different antigen -coated microspheres with discrete sizes to be analyzed independently for immunofluorescence. The assay detected antibody levels in human serum at dilutions up to 10(-6) and provided complete discrimination, using all three antigen preparations, between antibody levels seen in healthy subjects and those seen in patients suspected of having a systemic Candida infection. A standard enzyme immunoassay (EIA) failed to provide complete discrimination between healthy subjects and patient samples: at least 17% of patient values fell within the healthy subject range using all three antigen preparations. The microsphere assay which allowed for the simultaneous detection of multiple antibodies, has increased dynamic range over EIA and provides for better discrimination of patients from healthy subjects in comparison to EIA . Precise quantitation of antibodies is possible and the rapid analysis of thousands of microspheres markedly enhances the statistical accuracy of the assay . We suggest this assay is likely to have many other important applications in immunologic testing.

12/AB/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03586204 81143532 PMID: 7009748

A quantitative immunofluorescence test for the detection of anti-Candida antibodies.

Estes G B; Munoz M; Burdash N M; Virella G
Journal of immunological methods (NETHERLANDS) 1980, 35 (1-2) p105-13, ISSN 0022-1759 Journal Code: 1305440
Contract/Grant No.: CA-25746; CA; NCI
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

A quantitative immunofluorescence assay for anti- Candida antibodies has been developed using a recently introduced system that includes an automatic fluorometer and a special immunoadsorbent for antigen coating. A commercially available cytoplasmic antigen preparation was adsorbed into the substrate, and after incubation with sera from patients with systemic candidiasis or from normal controls, the antibodies bound to the antigen -coated immunoadsorbent were revealed by the use of fluorescein -labeled antisera to human immunoglobulins. Using doubling dilutions of a high titer serum, a positive relation was found between antibody concentration and the logarithm of the intensity of fluorescence . Quantitative assays of unknown samples were performed using a calibration curve constructed from dilutions of that strongly positive sample; the results of antibody determinations were expressed as percentages of the control. Seven of 9 sera from patients with systemic candidiasis, and only 2 of 42 from asymptomatic individuals, had antibody levels considered significant in this assay . Precipitating antibodies

were detected by counterimmunoelectrophoresis in all patients and in 18 of the asymptomatic controls; measurable antibody levels were also found in 14 controls showing no precipitating antibodies. This assay is simple, sensitive and inexpensive, and its quantitative nature makes it useful in the investigation of the immune response to C. albicans .
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